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CAUT ACPPU
BULLETIN

Performance Indicators
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Vol. 44, No. 9—November 1997 novembre

Hausse des frais de scolarité

L'accès aux études supérieures compromis?

LES ÉTUDIANTS DU SECTEUR postsecondaire subissent les contrecoups de la hausse des frais de scolatité, une dure réalité qui augmente leur taux d'endettement. Parallelement à cette situation, les inscriptions dans les universités diminuent.

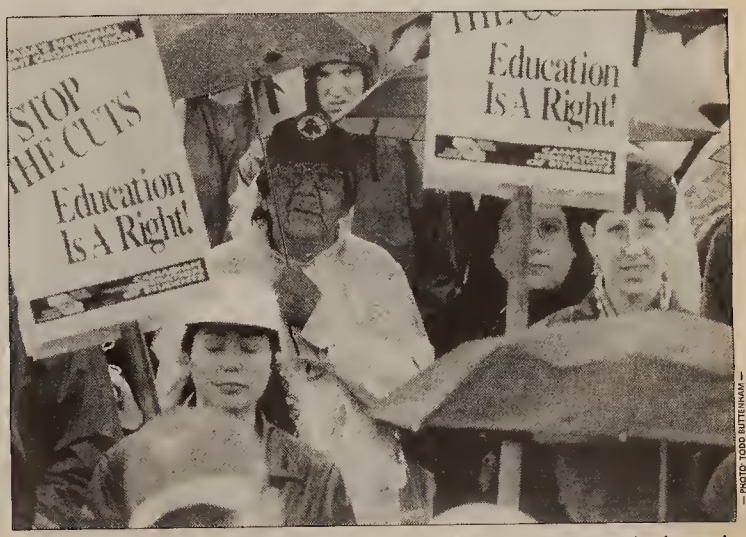
Un récent article de Don Little[1], analyste à Statistique Canada, a alimenté le débat autour des rapports complexes entre les inscriptions au postsecondaire et les droits de scolarité.

M. Little a fait la démonstration que les universités onr joui pendant longtemps d'une hausse sensible des inscriptions jusqu'au début des années 1990, en dépit de l'augmentation des droits de scolarité. Depuis 1993, cependant, les inscriptions ont plafonné puis elles ont churé à 651 249 inscriptions équivalent à temps plein en 1995, soir 573 185 étudiants à temps plein et 273 225 à temps partiel. En 1996 er en 1997, de nombreuses universités ont fait état d'une autre baisse allant de 1 p. 100 à 3 p. 100.

Manifestation étudiante — Le 11 mai 1996, la Fédération canadienne des étudiantes et étudiants a organisé à Ottawa une manifestation pour protestet contte les compressions en éducation qui enttaînent une hausse des frais de scolarité et aloutdissent, par conséquent, l'endettement des étudiants.

Qu'est-ce qui a contribué à cette longue période de hausses des inscriptions et pourquoi celles-ci diminuent-elles maintenant?

D'après des données de Statistique Canada, qui ne sont pas mentionnées dans le rapport de Little, la hausse des inscriptions dans les universités au cours des vingt dernières années est surtout attribuable à l'artivée d'un plus grande nombre de femmes cherchant à s'assurer un meilleur avenir. Ainsi, alors que les inscriptions à temps plein pour les hommes ont augmenté de 25 p. 100 de 1975 à 1995, les inscriptions à temps plein pour les femmes ont grimpé de 107 p. 100, soit une hausse globale de 50 p. 100. En 1975, près de 60 p. 100 des étudiants à temps plein étaient des hommes. En 1995, les femmes représentaient environ 57 p. 100 de la population étudiante. De même, pendant cet intervalle de vingt ans, les inscriptions à temps partiel ont augmenté de 31 p. 100 chez les hommes et de 89 p. 100 chez les femmes.



— PHOTO: TODD BUTTENHAM —

Les variations dans les taux de participation des étudiants sont attribuables à l'évolution des perspec-

Voir L'ACCÈS... à la page 10 ☞

Are Rising Tuition Fees Squeezing Out Students?

THE HARSH REALITY OF rising tuition fees is taking its toll on post-secondary students as student debt rises and enrolments decline.

A recent article, by Statistics Canada analyst Don Little,[1] has fuelled a debate focussing on the complex relationship between post-secondary enrolments and tuition fees.

Little demonstrated that until the early nineties, even while fees tose, universities enjoyed a long period of substantial growth in enrolment. Since 1993, however, entolments have plateaued, and then declined to 651,249 full-time equivalent entolments in 1995 (of 573,185 full-time and 273,225 part-time students). In 1996 and 1997 many universities reported further declines in enrolment of between one and three per cent.

What contributed to the long period of enrolment increases and why is it now tapering off?

According ro Statistics Canada data not featured in Little's report, the increase in university enrolments during the past two decades is overwhelmingly due to greatet numbers of women seeking bettet futures through higher education. For example, while full-time entolment of men increased by 25 per cent between 1975 and 1995, full-time enrolment fot women increased by 107 per cent, resulting in ovetall growth of over 50 per cent. In 1975, almost 60 per cent of full-time students were men. By 1995, approximately 57 per cent were women. Similarly, while the same twenty-year period saw a 31 per cent increase in part-time enrolment for men, there was an 89 per cent increase for women.

Some fluctuations in student participation rates are due to changing job opportunities. During recessions with high unemployment, more people turn to educarion as a means to improve their qualifications. Conversely, when the economy is improving, fewer people are willing to forgo lost income to pursue a better education.

It is possible that the post-secondary education system is approaching a steady state, and that participation rates will not increase substantially over current levels of 18-19 per cent of 19- to 24-year-olds.

However, recent slowdowns and declines in enrolment over the last five years are also influenced by large increases in tuition. Further increases in fees will accelerate the decline in enrolment and will mean reduced accessibility to higher education for many potential students.

Students from less advantaged backgrounds are hardest hit by steeper fees. To date, little statistical information about srudents' social background has been collected, and this is one area to be examined by the new Centre for Education Statistics and Human Resources Development Canada. But commenrators are beginning to ask a question not often heard since the late 1970s: where are the students from low-income families?

The phenomenon of plateaus or declines in post-secondary enrolment is already worrisome. But if the impact of increasing tuition fees is harshest for low-income families, there may be even more reasons for worry.

Little reported that avetage university student tuition fees rose by 62 per cent in real terms between 1990 and 1995. In 1997-98, fees across Canada rose by an average of nine pet cent. Fee levels vary by province, institution and ptogram. This year, full-rime undergraduate arts students are paying an average of $3,117 per year, not counting supplies, living and accommodation costs.[2]

Increases in tuition fees, coupled with changes to the Canada Student Loans Program, have contributed to a high rate of debt among university graduates. In 1996, a federal task force on youth estimated that by 1998 many srudents will begin their careers with personal educational debts of $25,000, up from $8,700 eight years earlier.[3] In Quebec, where fees are lower and there is still a strong grant system rather than a loan system, the typical debt is

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NEWSLINE

Financial Exigency Averted at Algoma University College

At the time of writing, it appears certain Algoma University College in Sault Ste. Marie, Ontario will not declare financial exigency and will not proceed with layoffs of members of the faculty bargaining unit. An investigative committee struck under the collective agreement following the board's declaration of intent to declare financial exigency on Sept. 30 found no *bona fide* state of financial exigency exists at the college, notwithstanding the considerable challenges posed by a current operating deficit of about five per cent of the total budget. The senate ratified the committee's finding on Oct. 29 and the board met the next day to receive the report and its findings along with the ratification of senate.

The faculty association and the board had signed a new agreement on Aug. 28, expiring on June 30, 1998. But, on Sept. 30, the board moved to invoke the financial exigency clause of the faculty collective agreement, with a proviso, however, that if the faculty would agree to concessions to reduce operating expenses by $400,000 (the $350,000 projected deficit plus a contingency of $50,000), financial exigency would not be declared.

The Algoma University Faculty Association declined to offer concessions based on the fact that the extent of the financial difficulties, as mentioned by the board at a meeting held on Sept. 18, were not brought to the attention of the faculty association during negotiations, and based on the fact that it did not have access to all the necessary information to assess the situation. Following the process in the article of their collective agreement covering layoff of faculty for financial exigency, an investigative committee was struck comprised of representatives of management, the board, the senate and the faculty association. CAUT provided an external member, Ron Melchers of the University of Ottawa, to assist Algoma faculty member Bob d'Amato in representing the faculty association.

Highlights of the committee's report and recommendations will be published in the December issue of the *Bulletin*.

COMMENTS? QUESTIONS?

Letters for publication are welcome. Maximum 300 words. Publication is at the sole discretion of CAUT. CAUT will not normally print letters about individual local grievances nor those which, in its judgment, are libellous or defamatory, are on subjects which are not within the purview of CAUT's activities, or have been sufficiently discussed by other letter writers.

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COURRIER DES LECTEURS

La rédaction invite les lecteurs à lui écrire. La longueur des textes est limitée à 300 mots. L'ACPPU se réserve le droit de choisir les lettres qui seront publiées. En règle générale, les lettres portant sur des griefs particuliers à l'échelle locale ne seront pas publiées ni celles que l'ACPPU estime diffamatoires ou dont le sujet dépasse le cadre des activités de l'ACPPU ou a été suffisamment débattu par d'autres correspondants.

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LETTERS COURRIER

Favouring our own citizens is only logical

William Greenberg of Puerto Rico (Letters, September) notes that Canadian universities give preference to Canadians over non-Canadians in academic hiring, a point about which Professor Irvine is silent in his much-discussed article. So he speculates that it is not affirmative action which Irvine is against, but only affirmative action for women.

As Bertrand Russell once said, people should take a course in logic to learn how not to draw inferences, since drawing false inferences is a much bigger problem than not drawing correct ones. To answer Mr. Greenberg's sophomoric attack:

1. Silence about an injustice does not imply favouring its perpetuation. If it did, we would all be guilty of many sins.

2. Favouring our own may not be the most enlightened practice, but if other countries favour their own citizens in academic hirings, then Canada doing so as well might be the best acceptable alternative.

3. Who pays the piper calls the tune. Since Canadian taxpayers pay for academics teaching in Canada, they have the right to favour themselves.

4. Canada discriminates against Puerto Ricans in much more important ways than the one complained about by Mr. Greenberg: education, health care, welfare, and pensions are only paid to Canadians, too. Are these injustices, too? And if so, should Mr. Greenberg's silence about them imply his favouring their perpetuation?

GRANT BROWN
Management, University of Lethbridge

Memorial web paper — fictional account

I read with some interest Dr. Schrank's contribution to the CAUT web site entitled "Memorial University One Year Later." I cannot refute Dr. Schrank's fictional account any more than one can refute any other piece of art.

In the spirit of the academic tradition, CAUT members should be interested in other views to inform themselves on this matter, and might avail themselves of three sources:

a) The CAUBO paper cited extensively, but selectively, by Dr. Schrank. It will provide a context for the many out-of-context quotations. A complete reading of this paper will make clear unequivocally that we discuss as two root causes of the current malaise of Canadian universities CAUT's effective campaign on behalf of faculty and the general inability or unwillingness of university presidents (read senior administrators) to provide counterbalance in the interest of the other partners in higher education.

b) The Academic Presidency — Stronger Leadership for Tougher Times (Association of Governing Boards of Universities and Colleges). From a CAUT perspective this volume may have suspect origins. It does establish, however, that the senior administtators at Memorial are far from alone in believing that we need more clarity and more accountability in our system of governance.

c) Those who prefer a more traditional academic treatment of this issue may wish to consult "The Meaning of Mass Higher Education" by Peter Scott, historian, long time editor of the *Times Higher Education Supplement* and now a university vice-chancellor.

Finally, Memorial is indeed a metaphor, as Dr. Schrank points out. Universities are changing. The only relevant question in this context is whether that change will be imposed by external forces or if it can be accomplished from within with active cooperation from faculty.

JAAP TUINMAN
Vice-President (Academic) & Pro Vice-Chancellor
Memorial University of Newfoundland

At the end of February 1997 Memorial University of Newfoundland Faculty Association marked the first anniversary of the signing of its third collective agreement. This anniversary provided a timely opportunity to revisit the troubled negotiations and to see how the collective agreement has been implemented. On The Web (Bulletin, September 1997) highlighted the availability of "Memorial University One Year Later: Implementing the New Collective Agreement," prepared by Bernice Shrank, professor of English and chief negotiator, third collective agreement, MUNFA, at the CAUT web site www.caut.ca. — ed.

MUNFA responds to Tuinman

Dr. Schrank's paper is a serious account and reasonable interpretation of what happened during MUNFA's last round of negotiations in 1995 and what has happened at Memorial since then. It is not surprising that Dr. Jaap Tuinman, Vice-Ptesident (Academic) and Pro Vice-Chancellor, does not like the interpretation, since the actions of the senior administration of Memorial are seen therein to be misguided and ineffectual.

Dr. Schrank's paper is also a serious critique of a paper delivered by Drs. Tuinman and Strawbridge, and Mr. Thistle, Vice-President (Administration), to a conference of the Canadian Association of University Business Officers, a conference from which both CAUT and MUNFA were excluded from attending by letter from the executive of CAUBO. That document includes a strident attack on what it calls CAUT's "ideology." It also includes a heavy-handed attack on academic freedom, which they characterize as "voluntarism."

Dr. Tuinman and the others find fault with faculty members choosing their own research topics; they are aggrieved that faculty members can choose to serve on committees that are of interest to them; and they are irritated that faculty members have a say in what courses they teach. It seems clear that they have a very different view of what constitutes a university than do most readers of the *Bulletin*.

Dr. Tuinman closes with the observation that change will come to the university either imposed by external forces or "accomplished from within with active cooperation from faculty." Readers should not therefore infet that at Memorial there is any attempt by senior administration to include faculty in meaningful decision-making.

Change for Memorial's senior administration is something that is imposed from the top. Faculty cooperation for Memorial's senior administtation requires quiet acquiescence to whatever it is the senior administration wishes to do at the moment.

The results thar flow from such a model of "decision-making" are unlikely to enhance the quality of education of our students, to improve the morale of faculty and staff or to further the goals of higher education.

JOHN C. BEAR
President, Memorial University of Newfoundland
Faculty Association

THE WHITE RIBBON CAMPAIGN

November 28 to December 6

On December 6, 1989, fourteen women were shot and killed by a man in Montreal who was angry at women. The White Ribbon Campaign is an opportunity for Canadians from all walks of life, especially men, to make their personal, public declaration against violence against women by wearing a white ribbon in the days leading up to the anniversary of the shootings in Montreal. For information call 1-800-328-2228.

White ribbons will be available for delegates attending CAUT Council on November 21-23, 1997.

CAUT ACPPU BULLETIN

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Reading Bill C-2

CAUT Lobbies Over Changes to CPP

BY GARY TOMPKINS & BOB MOORE

In late September, the federal government tabled Bill C-2 to amend the Canada Pension Plan Act. The bill proposes a wide range of changes to the CPP.

Overview

Bill C-2 is the result of the latest federal/provincial statutory review of the CPP which began in 1995. The bill incorporates changes proposed by the provinces which affect fuller funding, a new investment policy and amendments to benefit calculations and administration of the CPP.

The amended provisions establish and address the fiduciary obligations of the CPP Investment Board, deal with conflict of interest and the appointment of directors. The government intends to institute this new regime by Dec. 1997 to allow new benefits, investment measures and increased contribution rates to become effective Jan. 1, 1998.

Statutory Requirement & Review

The amendments proposed in Bill C-2 are supported by the federal government and all provinces, except Saskatchewan and British Columbia. The Province of Quebec has a similar plan, the Quebec Pension Plan (QPP). Provincial support for the proposed modifications fulfils the statutory requirement that CPP changes have the agreement of at least two-thirds of the provinces containing two-thirds of Canada's population.

Current pensioners will not be affected by the proposals. Full indexation of all benefits except the death benefit remains unchanged, as do eligible retirement ages.

Fuller Funding

Foreseeing a financial drain when the "baby boomer" generation retires, the government proposes to build substantial fund reserves by increasing contribution rates over the next six years, from 5.85 per cent to 9.9 per cent of annual contributory earnings. This represents a $450 per year increase for Canadians at or above the yearly maximum pensionable earnings, currently $35,800. This funding arrangement replaces the "pay as you go" approach to reduce intergenerational transfers.

The year's basic exemption — the first $3,500 of earnings on which no contributions are paid — will be maintained, but frozen at that present level. Contribution rates will continue to be shared equally by employers and employees. Thus the year's basic exemption will not be indexed for inflation. This results in an increase in the portion of earnings not exempted.

During the consultative committee hearings in May 1996, CAUT recommended that CPP contribution rates be increased immediately by 0.3 to 0.4 percentage points per year to a maximum of about 10 per cent in ten years. The government's proposed schedule of rate increases is much more dramatic — taking six years rather than ten to reach its target.

CAUT also recommended raising the pensionable earnings ceiling to between 1.5 and 2 times the Average Industrial Wage. Bill C-2 does not raise the pensionable earnings ceiling to either of those levels, but does continue for now to index the current yearly maximum pensionable earnings in future years.

Benefit Changes

There are six proposed changes to the calculation and administration of future CPP benefits:

Retirement pensions will be based on the average of the last five years yearly maximum pensionable earnings, rather than the last three. An individual's pattern of compensation in the years prior to retirement is the key factor in determining the effect of this change on retirement income.

There will be an attempt to be more consistent in dealing with appeals for disability benefits.

Eligibility for disability benefits will be tightened. CPP contributions will be required in four of the last six years to be eligible.

Retirement pensions for disabled beneficiaries will be based on maximum pensionable earnings at the time of disability, then price-indexed to age 65.

Changes will limit the extent to which survivor and disability benefits, and survivor and retirement benefits, may be combined.

The death benefit will be reduced from $3,580 to $2,500. The lack of indexing means a further reduction in the real value of this benefit in the future.

CAUT had recommended that benefits be maintained and indexed to inflation. Bill C-2 generally respects those recommendations. However, the proposed premium schedule contains increases far in excess of the limits recommended by CAUT. The government also did not accept our advice to implement a clawback on the death benefit for large estates.

Investment Policies

As joint stewards of the CPP, the federal and provincial ministers have agreed to invest CPP monies in diversified portfolios of securities. An investment board will manage the CPP fund and be accountable to government and the public. The foreign property limit for pension funds will apply to the CPP. The board's policies will be reviewed in 1999.

CPP Reports

CAUT recommended that there be a concentrated effort at educating the public on how the CPP works, how it is funded, and how it affects Canadians' retirement. Canadians will now receive regular statements about their CPP pension. The CPP Investment Board will provide quarterly financial statements and annual reports. The board will hold public meetings at least biennially in each participating province to report on the performance of the CPP investment fund.

Seniors Benefit

Changes to the Old Age Security and Guaranteed Income Supplement legislation will follow the government's CPP initiatives. The new Seniors Benefit, at present, is to take effect in 2001, but there continues to be much discussion with the Ministry of Finance by seniors and other interested groups, including CAUT.

Future Amendments

A number of other issues related to sustaining the CPP need to be addressed. Many of these concerns were raised late in the 1995 review. Such matters include partial pensions, survivor benefits, credit-splitting, CPP coverage and the stacking of pensions and employment insurance benefits. These issues will be examined over the next two years, but there is no change envisioned for the steady-state contribution rate of 9.9 per cent of pensionable earnings achieved by 2003.

Bill C-2 addresses some items not yet treated by CAUT. For example, the legislation includes clauses about liabilities and debts owed to the Crown or third parties by the contributor. These provisions pertain to the continuance of disability or survivor pensions and child benefits under the CPP. There are other proposed amendments which relate to the use of social insurance numbers that have privacy ramifications for Canadians, and the definition and application of "spousal agreements" have important consequences concerning benefits for spouses.

CAUT is concentrating its lobbying efforts on the immediate legislative amendments to the CPP. A contact network of interested members from local associations has been established. A task force is working on the CAUT lobby as Bill C-2 proceeds through the various stages in the House of Commons and Senate. ■

(Gary Tompkins teaches economics at the University of Regina and is a member of the CAUT Collective Bargaining & Economic Benefits Committee. Bob Moore is CAUT professional officer for economic benefits.)

GRIEVANCE/ARBITRATION CONFERENCE

CAUT

Each year the CAUT Grievance/Arbitration Conference presents an opportunity for grievance officers from faculty associations/unions to get together to share information and ideas, and to learn about and debate the current topics and concerns in grievance and arbitration on university campuses. Interested members of faculty associations are also welcome. This year the conference addresses issues such as:

- Dealing with Mentally Disabled Grievors
- Technology
- Handling Discrimination Cases
- Damage Awards — How Far Can We Go?
- The Duty of Fair Representation After the Weber Case

A detailed agenda is now available at your local Faculty Association/Union office.

For more information contact Nancy Gordon at CAUT.
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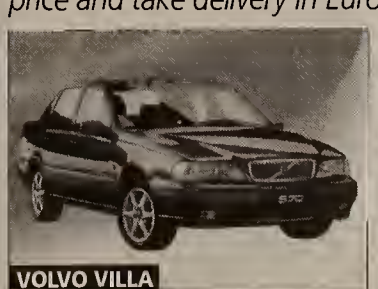

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Social justice debates should not be derailed by inappropriate use of silencing rhetoric.

The Subtleties of Silence Can Be Deafening

BY JENNIFER BANKIER

"YOU ARE SILENCING ME." This vague rhetoric is infinitely adaptable. It can be used both to challenge oppression and to perpetrate it.

We would all condemn some forms of silencing. We all agree it was wrong for Marc Lépine to permanently silence the voices of 14 women at the University of Montreal's École Polytechnique, or for Valery Fabrikant to silence his colleagues at Concordia University by killing them.

Institutional power can also be abused in order to silence people through threats to jobs, education, or other important needs. Senior administrators have power over academics. Academics have power over students as evaluators and referees, and over each other through appointments, reappointments, tenure and promotions processes. Students have power over academics through teaching evaluations.

These powers can be used to punish unpopular speakers who confront the establishment, and fear of such abuse may discourage others from speaking. There are more precise words than "silencing" to refer to these problems — inequality of power, retaliation, intimidation, academic freedom violation, discrimination, unfair procedures.

Unfortunately, the rhetoric of silencing can also be abused, unintentionally or otherwise, by members of advantaged groups. This can be done in ways that effectively prevent members of disadvantaged groups from naming the problems and people who oppress them.

For example, when members of a disadvantaged group attempt to talk fully and frankly about their experiences and analyses of discrimination to a mixed audience, members of the advantaged group may angrily accuse the disadvantaged people, and their allies, of silencing them.

This reaction against criticism seems to arise out of fear of loss of self-esteem. The difficulties people have in dealing with criticism often lead those criticized to end the discussion. This prevents an objective consideration of the merits of the analysis put forward by the disadvantaged.

Often even the most careful attempts by disadvantaged people to discuss specific problems in terms of differential impact or system-based discrimination can be reflexively transformed by advantaged people into accusations of bad intent, malice and ill-will.

Any constraints to avoid criticism will in fact silence members of disadvantaged groups by prohibiting all discussion of discrimination unless it takes place at a high level of abstraction without any reference to particular people, problems or places.

Moreover, meaningful analysis of discrimination requires analysis both of the negative impact of present practices on members of disadvantaged groups, and the positive impact or benefits of the status quo for members of advantaged groups.

For example, working people must be free to analyze how capitalism benefits capitalists at the expense of workers. White women should be free to analyze how a patriarchal system benefits White men. Black and Aboriginal peoples should be able to discuss how White men and women benefit from and perpetuate their subordination in Canada.

If we are ever to achieve social justice, these and other groups must be free to express these analyses both at an abstract level, and more particularly to identify and remedy problems within the universities or workplaces where they actually live their lives.

They should even be free to suggest that some advantaged people are discriminating intentionally in order to protect or extend existing powers and privileges, since intentional self-interested discrimination will be harder to eradicate than unintentional discrimination based on ignorance and habit.

These important debates should not be derailed by inappropriate use of silencing rhetoric that would deny members of disadvantaged groups the right to raise important issues unless they can do the impossible by framing these issues in ways that will be neither hurtful nor critical of advantaged people.

If advantaged people do not agree with these analyses they should not hide behind a shield of silencing rhetoric, but rather should have the courage of their convictions, and enter the debate by addressing issues on their merits.

As part of the process of defining a position to be expressed, members of advantaged groups should exercise some self-discipline and put their minds to the merits of the critiques put forward by disadvantaged groups, instead of reacting through a knee-jerk process of denial of personal fault and personal benefit.

To this point, the analysis has been general, referring to all advantaged and disadvantaged groups. But let us look more specifically at people who are disadvantaged in some ways and advantaged in others. Consider, for example, White women who are disadvantaged as White women with respect to White men, but advantaged as White women with respect to Black, Aboriginal, Asian and other racial minority men and women.

Most of the White female readership would agree with the analysis above as it applies to the efforts of some White male academics and students to silence our efforts to discuss sexism in the academy through silencing rhetoric.

It is troubling, therefore, that some of us feel free to ourselves use the rhetoric of silencing in an effort to silence racial minority men and women when they try to raise issues of racism with respect to our own behaviour, power, analyses, and practices as White women.

If we expect White men to listen to our analyses of sexual inequality without retaliation, sanctions, or the use of the rhetoric of silencing to prevent us from speaking, then we must practice what we preach and exercise a similar self-discipline when we are criticized, for example, by Aboriginal, Black or Asian men and women.

This process may be painful for us — as it is for White men — but this pain and self-discipline are necessary prerequisites to the creation of a just and equitable environment within Canadian universities. We need many, diverse voices speaking frankly about their experiences, not universal "sounds of silence" produced by inappropriate use of silencing rhetoric. ■

(Jennifer Bankier is Chair of CAUT's Status of Women Committee.)

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Challenges in Using Technology for the Improvement of Undergraduate Education

BY G. ROGER SELL

OPPORTUNITIES PROVIDED BY NEW technologies such as the Internet and World-Wide Web, CD-ROM data bases, multimedia presentations, and other instructional uses of computers require considerable reflection and debate as to whether, and under which conditions, they will enhance the quality of learning and teaching. This essay begins to address this issue, but it does not include some topics, such as cost-related issues and substitutions of technology for faculty, treated in a larger paper (cited at the end).

The claims for using technology to enhance education are considerable. For example, Niemi and Goolet (1987) note the following benefits of information technologies for learning outside the classroom: increased access to learning opportunities, access to more and better information resources, availability of alternative mediums to accommodate different learning strategies, increased motivation to learn, and, potential for both individualized and cooperative learning. In a similar vein, Massy and Zemsky (1995) contrast the potential benefits of information technology-based (IT-based) teaching and learning with the "traditional handicraft mode of education." In their view, IT-based teaching and learning has distinct advantages: provides access to enormous quantities of information available through the Internet and on-line databases; eases the limits of time and space for educational activities; brings the best lecturers to students via multimedia so that "those of the best will drive out those of the merely good" (p. 3); enables self-paced learning, sensitivity to different learning styles, and continuous assessment of progress; makes the teaching and learning enterprise more outcome-oriented, which enhances the ability of institutions to stimulate experimentation and innovation; increases learning productivity, especially in areas of "codified knowledge and algorithmic skills" (p. 4); and, empowers students to have greater control over the learning process and benefits associated with active learning and personal responsibility.

In examining claims such as these, it is important that we not confuse access to information with either education or the ability to use information wisely, and we must consider three hidden assumptions.

One assumption is that information and knowledge are synonymous, that is, if one has access to and acquires information, one possesses knowledge. In the broad view, information encompasses data, facts, opinions, hypotheses, beliefs, concepts, problems, procedures, and ideas. In order for information to become knowledge for students, it must be transformed and become meaningful through human interaction. In this sense, knowledge is not something external, to be imported directly; rather, knowledge is constructed as meaning and in relationship to an individual's understandings and experiences.

A second assumption hidden in many arguments for using information technologies is that providing information is equal to providing education. Even if information and knowledge are treated synonymously, which they should not be, is it reasonable to limit one's view of education as providing information? In Bloom's Taxonomy, for example, recall objectives are most directly related to providing information. What about other objectives that require students to apply, analyze, synthesize, or evaluate a concept, principle, practice, or method? Moreover, how does providing information accommodate learning objectives that focus on intellectual skills or ethical values? Student development would be short-changed if learning objectives were limited to recall and comprehension within the view of "education as providing information."

A third hidden assumption is that more information results in more learning. New information technologies, accompanied by multimedia capabilities, theoretically bring "a world of knowledge" to the student. Information, as content or subject matter, is essential for learning. However, for many learners, especially novices in undergraduate education, more information has the opposite learning effect: paralysis by overload. Quantity of information is less important than appropriate content for given objectives, students, and their learning processes. More information can result in less learning.

The assumption that more information results in more learning often is accompanied by the expectation that students interact in some meaningful way with rich information to produce new learning. However, interaction (or active engagement) by itself is not sufficient for student learning; purpose and quality of effort also are necessary.

These three assumptions often are used without a sufficiently complex theory, explanation, or set of practices whereby technology-based information is a resource in learning processes that develop particular knowledge, skills, and values. Ericksen (1985) stated the case in this way: "The stimulus source of information is not a critical element in comparison to the meaning students give to a presentation, the feelings aroused, and how knowledge is used to satisfy curiosity and solve problems. The effective use of various options for presenting information puts pressure on the teacher to probe the meaning and implications of a unit of knowledge, to be a mentor in learning and in the forming of value judgments...." (p. 39)

Both substantive knowledge and intellectual skills are required to search, locate, make sense of, and use information for productive (and intrinsically valuable) learning and teaching.

Beyond broad policy concerns, prospects for incorporating technology into undergraduate education are influenced by the way faculty and students think about teaching, learning, and the role of technology. Some have questioned whether the fuller uses of new information technologies can be realized without a paradigm change toward learner-centered, interactive, outcomes-oriented instruction. Such a shift requires new role definitions for both faculty (teachers) and students (learners).

A related but different concern focuses on expectations for students. Do we expect students who use new information technologies to pursue independent and self-directed learning? If so, which "learning to learn" capabilities do we assume students possess? Or, do we design instructional programs that help students use technology to develop their learning knowledge, strategies, skills, and motivations?

Verduin and Clark (1991) also suggest caution in assuming that benefits such as those noted above will be fully realized: "It is easy to wax rhapsodic about the future of educational media, predicting that there will be a workstation or hypermedia system in every den and that a plethora of telecommunications carrier systems will make possible virtually instantaneous audio, video, and computer communication around the world. The problem with such a rosy scenario is that only a small portion of the world's population will be able to afford such services." (p. 207)

Niemi and Gooler (1987) would seem to agree. Consider the following technology issues, problems, and limitations they address for out-of-classroom learning: access and equity, quality of materials and programs, developmental costs, standardization, obsolescence, lack of human contact and interaction, and, continuous need for training. As Niemi and Gooler (1987, p. 107) conclude, "empowering people to understand and use information resources and technology is one of the major challenges confronting instructional designers and distance educators."

Experiences of the California State University System (e.g. Baker, 1994) and other institutions strongly suggest attention to conditions for successful technological applications. The following should be carefully considered: workshops, seminars, demonstrations, and travel resources that provide faculty with opportunities to examine and exchange viewpoints about the roles of technology; time and support for faculty to adapt existing instruction and develop new instruction suitable for technology-based instruction; faculty development and hands-on experience in becoming proficient in the technical aspects of using technology and distance communications; adequate recognition and reward systems for teaching with technology and in distance education programs; infrastructures and technical support in place and working well; serious study of student markets, programs, and courses that are best suited for distance education; and, developing an institution's distance education capabilities and the availability of high-quality materials.

Recent literature on technology for education often uses numerous broad categorical terms somewhat indiscriminately and interchangeably. Some of these terms include educational media, communication technology, information technology, and educational or instructional technology. Consider three different uses of the term "technology": tools, including hardware, software, and systems or networks that are used in teaching and learning, but which are merely instruments or vehicles void of substance; know-how, including methods and procedures that are used in teaching and learning processes; and/or "intelligent" tools, with knowledge components that provide interactive (and, sometimes, adaptive) instruction without external intervention.

Whether technology is treated as tools, processes, or both (which is the perspective taken here), other essential elements in a teaching-learning system must be accounted for. These missing elements and the questions they address include: students and teachers (who?); goals and objectives (why?); subject matter or content (what?); time (when and how long?); settings (where?); and outcomes (with which results?). A technology of instructional design, based on knowledge of teaching and learning within particular contexts, is often overlooked when notions of technology focus on tools and/or methods for instruction. This larger framework is necessary for assessing whether, and under which conditions, technology improves undergraduate education. What seems critical here is the need to adapt technology to learners, rather than to adapt learners to technology (Gooler, 1987). This might be accomplished through different mixes and matches of technology based on individual circumstances. As Cross (1976) argued, we must move beyond access concerns ("education for all") to concerns for the quality of education individual students experience ("education for each"). With a major emphasis on technology, do we have the knowledge, experience, resources, will, and wisdom to accomplish this goal? ■

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"Using Technology and Distance Instruction to Improve Postsecondary Education" is available at http://www.uni.edu/teachctr/technol2.html

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The Goal of a University Not Easily Captured by PIs

Canada's social and economic well-being depends on a broadly accessible system of higher education. Canadians have therefore shown a strong historic commitment to a well-funded system of public higher education. Universities must be accountable for the use of public funds. Accountability, we say, requires that public universities and community colleges, like any public institution, should be able to say what their goals and mission are, and whether or not their funding and staff are adequate to fulfil those goals and that mission. Accountability thus requires judgements — judgements that no statistic could replace.

The governance of universities should be sufficiently transparent that a member of the public can readily find out the university's means and ends. Given the academic character of universities, the academic Senate should be the place where that person would first look.

In limited respects, a university's progress in achieving its mission may be described statistically. For instance, a university seeking to increase the number of students from low-income families would use statistical measures, among other indicators, to decide whether it was attracting such students. To take another example, a university aiming to reduce administrative costs so far as possible, would certainly want to examine the proportion of operating funds devoted to administrative costs over some reasonable period. These are, arguably, appropriate uses of statistical "indicators" in education.

The goal of a university is, however, to offer the public the best possible teaching, research, and community service. This is a complicated objective not easily captured, even in part, by performance indicators [PIs].

Each university's mission and history are different. No uniform performance measure — whether provincial or national — could possibly show if a university is "doing its job." PIs have not always taken into account a university's historic mission. Instead, many PIs seek to measure "satisfaction" with post-secondary education (students' approval of levels of teaching, graduates' and employers' approval ratings of programs of study). This appeal to market principles, coupled with the advocacy of PIs by the accounting community, raises persistent doubts about the application of PIs to educational outcomes.

Performance Indicators are a form of statistical analysis. They are measurements — of speed, power, efficiency, or productivity, particularly where productivity is a measure of input required for an output. Strictly speaking, the term "performance indicator" should be limited to statistical policy analysis of inputs vis-à-vis outputs. But in practice the term is also used to mean any statistical analysis of the work of universities or colleges.

Supporters of PIs insist that statistical measures of input, output, throughput, and efficiency are necessary for accountability. Proponents say universities should compete with one another for higher and higher scores, despite scant evidence that the search for higher and higher rankings necessarily improves university teaching, research, or community service. Accountability is far more than measurement.

Certain "indicators" of accessibility, of openness in governance, of size and cost of administration, and on new techniques of instruction might stimulate a continued, but responsible transformation of Canadian post-secondary education. The collection of statistical and administrative evidence might further encourage informed argument on curriculum, on teaching practice, on administrative practice and services, on university funding, and on the organization of disciplines and professions in the university.

However, there are indications that PIs are not primarily intended to encourage any such transformation. The growing popularity of PIs follows directly from cuts in public funding for universities and colleges since the 1980s. Performance Indicators are being used to decide how and when to cut, to force changes in curriculum and teaching throughout the post-secondary system, and to permit direct government management of the universities and colleges. In this sense, PIs are a certain road to mediocrity.

If Performance Indicators Are Imposed on You

The great danger of Performance Indicators is that they will be used to attack departments, faculties, and individuals.

BY BILL BRUNEAU

THIS CHECKLIST GIVES INFORmation useful in discussing, negotiating, and (if need be) fighting against performance indicators (PIs); and advice on actions you can take when discussing, negotiating, and dispensing with PIs.

PIs may come as completely developed "accountability systems," or as discrete items and proposals, apparently unlinked and unrelated to each other. It makes a difference whether performance indicators are imposed by your local university administration, by the provincial government, by the federal government, or by a granting agency. This checklist contains items that may not work equally well in all cases.

Insist on a List of Good Reasons for PIs

PIs should be accompanied by a detailed list of the reasons for imposing those PIs.

Ask what the purpose(s) of *the PIs is/are: If* PIs are from provincial government, are they part of a wider plan to make the financial "reporting" of social services consistent across all ministries? That is, are PIs merely the basis of a new accounting system? If so, what good does the new system do? How does it improve educational practice? How does it improve administrative practice? *Exactly?*

If improved educational practice/student learning is the outcome: Insist on seeing the exact chain of cause and effect from PIs to improved practice. This is essential, whether the PIs come from government or from the local university administration.

In the world of education, we rely on professional judgement in figuring out how to improve practice — not on naïve ideas about how A B C D, where "A" and "B" are PIs and reports based on them, "C" is improved educational practice, and "D" is increased student learning.

If the aim is to save money: Ask for *detailed budgetary forecasts* of savings. Insist on a balanced (negative and positive) list of the likely consequences of budgetary restrictions, especially in learning conditions (class size, library size and availability, time available for professors and librarians to consult with students), and in research conditions (time to do research, research assistance/assistants, physical and technical infrastructure, and so on). Be sure to ask about "Cost" on this checklist.

If the aim is "improved accountability": Remind the supporter of PIs that accountability means "the ability to say what you are doing and why." Some PIs may show what universities and colleges do; that is why CAUT is not opposed to PIs. But *no* PIs show *why* they do what they do. This means that PIs have little or nothing to do with accountability.

Ask how PI statistics would ensure that governance was transparent and fair. PIs are, after all, indifferent to politics. A system of PIs would work just as well in the German armament industry in 1935, or the old Soviet coal mining industry of the 1950s, as it would with universities now — yet those historical examples were of accountability as *control.* Ask how PIs contribute to true accountability in a democracy.

In the name of "accountability," insist that the long-term aims and short-term reason for each PI be given each and every time a PI is developed or used in public. Insist that the chain of authority for each PI be described for each PI at the time it is developed, when it is applied, and when it is published.

Cost

Insist that the agent(s) or person(s) who propose PIs provide a detailed and complete cost breakdown for the development, implementation, and execution of a PI system.

It requires many bureaucrats and much of our time to develop and to apply PIs. This is time taken away from policy development, from teaching, from research, from direct interaction with students and the public. PIs thus put a strain on the usual priorities of government departments, and the priorities of universities and colleges.

That strain would be "justified" only if supporters of PIs could give satisfactory answers to the questions outlined above.

But in any case, PIs are costly. The question is, *Are they worth the cost?*

In costing out PIs, don't forget to ask about:

- time spent by bureaucrats (provincial or university) travelling to see PIs in use in other jurisdictions, reading and researching PIs, and defining PIs.
- time and money allocated to information retrieval to "feed" the PIs.
- time and money for superintending and administering PI reporting systems, once in place.
- time and money spent communicating PIs to higher levels of government, and communicating PIs to the public.

Benefits

PIs are supposed to produce benefits.

Insist on seeing how each and every cost is linked to a benefit. This is likely to prove very difficult in practice. But this is just the point: the usual cost-benefit analysis simply does not work in education.

The cost of running universities and colleges is considerable, of course. However, the reasons for spending money on education are different in kind from those for spending money on industrial machines or human "capital" — in education, it isn't a question of input *versus* output, or throughput rates, or profit margins. This means that the link between PIs and educational benefits will be extremely indirect, if it can be found at all.

Some PIs (for example, straightforward reports on the administrative cost of running a university or equipping a library) may suggest useful improvements in administrative and budget practice. The result might be more time and money that could be spent on the *real* business of universities and colleges — education.

Transparency

Insist on knowing who is writing PIs, when, where, and why. If PIs are coming from provincial government, this information should be open and available at all times (why not put it on a web site?). The information on the time and money being spent by government should be available on an accumulating, regular basis (again, on a web site — and preferably not just annually).

PIs developed by university administrations or (if we're lucky) university senates, should be transparent in just the same way.

Transparency also means, of course, that the questions outlined above, are constantly asked and answered.

Transparency also means that the definition, development, and implementation of PIs will be accompanied at all times by publication, and by some sort of public (or even peer) review. The standards of reasoning and evidence we expect to apply to ourselves should be applied at all times to government and to university administration.

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PIs in University Libraries

BY ELIZABETH CASKEY

LIBRARIANS AND LIBRARIES HAVE concerned themselves with Performance Indicators for many decades. We have not always used this term but we have long been interested in measuring and evaluating what we do. We collect statistics which we have long believed describe both what we do and how well we do it. Until recently, we have not really had to ask ourselves what all these numbers really mean. Do they have any meaning at all?

What has changed is the political and economic context in which we provide our services. University administrators, politicians and the general public, through such mechanisms as *Maclean's* Annual Ranking of Universities, are requiring proof that we are "accountable" both to our institutions and to our funding bodies (the provincial and federal governments) and are demanding "quality," however vaguely that is defined. Universities must argue with provincial departments of finance that operating grants should not only not be reduced, but increased. Libraries must prove that cuts to the collections budget, for example, will have detrimental effects on teaching and research. And we must make these arguments when both institutions and governments are actively seeking reasons to justify reductions and ways to redirect the funds elsewhere.

A great emphasis is being placed on establishing goals and objectives and then proving to the "public" that the institution is meeting these goals. We are being asked to provide value for the money we are granted. For now, it is perhaps inevitable that governments will demand some kind of quantitative measurement of our institutions because somehow this measurement will prove (or disprove) that value is being provided. This then provides the justification for budget decisions.

It is, however, not only possible and desirable, but essential to show the value of educational institutions and practices in many other ways: with reference to the historical development of the institution — in its community, province, and country; with respect to an educational theory that responds to changing social needs, and so on. There is a great danger in allowing purely quantitative data to become a proxy for "quality" and "value received." Although it is central to our concept of accountability that we are able to explain what we do and why we do it, and although we must not lose sight of this in response to increasing government and institutional demands for "statistics," we need to think of the value of our institutions from a number of perspectives, of which goal-achievement and quantitative measures are only two.

Library Objectives

We already measure our activity so that we can inform our publics about our work. We are accountable. Accountability means "the ability to say what we are doing and why." Internally, we want to improve our performance over time and compare that performance with other academic libraries where that is relevant. If we are to be accountable the assessment must be related to the objectives and activities of the individual library and to the needs and objectives of the institution. A fundamental component is participation in the decisions about these objectives and activities. We have a right to participate in decisions that affect us.

It is important, also, to separate performance indicators adopted for the purpose of evaluating the institution or individual library and those which lead to the evaluation of individuals, even though administrators may deny that they will be used for that purpose. It is essential that the definition, development, and implementation of PIs be accompanied at all times by publication and by a public (or even peer) review.

What does it mean when an institution adopts as one of its goals that the library move up in the American Research Libraries (ARL) rankings of academic libraries as the Board of Governors at the University of British Columbia did a number of years ago? If circulation figures increase is this a measure of the effectiveness of classes delivered by librarians on good research strategies? Does an increase in the number of reference queries translate into claims that more and better quality research is being conducted? We should be using statistics to help us manage and plan. We should count the number of books in our collections to aid in the planning for new library buildings, not in order to move up in the rankings for academic libraries.

In a document entitled *Developing Indicators for Academic Library Performance: Ratios from the ARL Statistics 1992-93 and 1993-94* (ARL Statistics and Measurement Program — http://arl.cni.org/stats/Statistics/) Martha Kyrillidou has identified three issues affecting reliability and validity of library data: "consisten-

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L'objectif d'une université — pas facile à reproduire

À certains égards, par contre, on peut décrire statistiquement la réussite d'une université à réaliser sa mission. Ainsi, une université qui cherche à augmenter le nombre d'étudiants à faibles revenus utilisera des statistiques, parmi d'autres indicateurs, pour déterminer si elle attire cette catégorie d'étudiants. De même, une université qui vise à réduire autant que possible ses frais administratifs voudra certainement examiner la proportion des fonds d'exploitation qui y sont consacrés pendant une période raisonnable. On peut soutenir que ces «indicateurs» statistiques sont utilisés de manière appropriée en éducation.

L'objectif d'une université consiste toutefois à offrir au grand public ce qu'il y a de mieux en matière d'enseignement, de recherche et de services à la communauté. Les indicateurs de rendement ne réussissent pas facilement à reproduire cet objectif compliqué, ne serait-ce qu'en partie.

La mission et l'histoire d'une université différent d'un établissement à l'autre. Aucune mesure du rendement, qu'elle soit provinciale ou nationale, ne peut montrer qu'une université fait son travail.

Les indicateurs de rendement ne tiennent pas toujours compte de la mission historique d'une université. De nombreux indicateurs s'attachent plutôt à évaluer le degré de satisfaction envers l'enseignement postsecondaire (dans quelle mesure les étudiants approuvent l'enseignement dispensé, le taux d'approbation des programmes d'études par les diplômés et les employeurs). Cet engouement pour les principes du marché, ajouté à la faveur que donne le milieu de la comptabilité aux indicateurs de rendement, sèment des doutes persistants sur l'application des indicateurs de rendement aux résultats éducationnels.

Les indicateurs de rendement constituent une forme d'analyse statistique. Ils mesurent la vitesse, la puissance, l'efficacité ou la productivité surtout si la productivité est une mesure du facteur de production nécessaire à l'obtention du produit final. Plus précisément, l'expression «indicateur de rendement» devrait être limitée à l'analyse statistique des facteurs de production par rapport au produit final. En pratique, toutefois, l'expression est aussi utilisée pour désigner toute analyse statistique du travail des universités ou des collèges.

Les tenants des indicateurs de rendement estiment que des mesures statistiques des facteurs de production, du produit final, de la production et de l'efficacité sont nécessaires à l'obligation de rendre compte. Selon eux, les universités devraient se faire concurrence pour obtenir des résultats toujours plus élevés malgré l'évidence insuffisante que cette quête de résultats sans cesse plus élevés améliore nécessairement l'enseignement, la recherche ou les services à la collectivité. La responsabilité publique est beaucoup plus que des mesures.

Certains «indicateurs» sur l'accessibilité, la transparence dans la direction, la taille et le coût de l'administration ainsi que sur les nouvelles méthodes didactiques pourraient stimuler une transformation continue mais responsable de l'enseignement postsecondaire au Canada. La collecte de preuves statistiques et administratives pourrait susciter d'autres arguments informés sur le programme d'études, la pratique de l'enseignement, les habitudes administratives et les services, sur le financement de l'université ainsi que sur l'organisation des disciplines et des professions au sein de l'université.

Toutefois, il semble que les indicateurs de rendement ne visent pas principalement à stimuler une transformation. La popularité grandissante des indicateurs de rendement est directement attribuable aux coupes faites au financement public des universités et des collèges depuis les années 1980. On se sert des indicateurs de rendement pour décider comment les compressions seront exercées et quand elles seront faites, pour modifier de force le programme d'études et l'enseignement à la grandeur du système postsecondaire et pour permettre au gouvernement de gérer directement les universités et les collèges. En ce sens, les indicateurs de rendement pavent la voie à une médiocrité certaine.

New Contract Language on PIs at Queen's University

THE 1997-1999 COLLECTIVE agreement for faculty at Queen's University is likely the first Canadian university contract to include an article about performance indicators.

In the Queen's agreement, performance indicators include "any parameter, measure or quantitative instrument intended or used for:

(a) evaluating, measuring, ranking or comparing the performance, productivity or standards of an academic unit, program, faculty, school, institute, in whole or in part; and

(b) making decisions which affect the terms or conditions of a Member's employment."

The agreement stipulates that no new performance indicator shall be applied by the university unless the new performance indicator has been submitted to the joint committee for administration of the agreement with enough time to permit the faculty association to consider its "legitimacy and efficacy prior to application." New performance indicators are those which were not publicly circulated before November 1, 1996.

The faculty association can submit its objections to the vice-principal (academic) if it has grounds to believe that a performance indicator is invalid. The test of validity is based wholly or partly on whether the indicator violates the terms of the collective agreement, is premised on false assumptions, or uses illegitimate methodology.

Refusal to withdraw an objectionable performance indicator is grievable, and application of the indicator is suspended during the course of the grievance. ■

For further information contact the Queen's University Faculty Association at qufa@post.queensu.ca. The full text of Article 26 on performance indicators is available at: http://www.queensu.ca/qufa/colagr.htm

CAUT's Policy Statement on Performance Indicators

In November 1996 CAUT Council approved a policy statement on PIs. Excerpts are highlighted below. The complete document is available at www.caut.ca.

8) Where PIs have other than descriptive intent or use, they should be negotiated between the faculty association and the administration. This is particularly so in respect of PIs that involve the terms and conditions of employment, for example, conditions of academic freedom, research, teaching, workload, compensation or preferment, and so on. Negotiation will include a detailed description of the powers and responsibilities of any person or department charged with the creation of indicators, whether statistical or non-statistical indicators. The result should be a clear and complete picture of the kinds of PIs to be developed, who will develop them, who will collect them, how results will be published, how results will be subjected to peer review, and what the final uses of PIs are to be — especially in cases where their final use is in the hands of government ministries, or where PIs may affect the standards of tenure and promotion. The cost of developing and using any PIs should be published each year in the annual financial report of the university.

9) Performance Indicators should answer important social and educational questions: what is the historic mission of the university or college? Is the wider community fully welcomed? Is the university or college accessible to students from all social classes? Are the main branches of knowledge under study and research? What assistance does the institution give to its academic staff to improve teaching and research? How is academic freedom defended on the campus? How are the requirements of women and equity-seeking groups satisfied? How good — and on what criterion — is the library, and how is this measured? How good are the scientific laboratories and computer systems, on what criteria, and how measured? How have these characteristics changed over time and *why*?

10) There should be full disclosure of the long-term and short term reasons and motives for each PI. The disclosure should show how each PI could increase the resources on which good teaching and research depend. Most important of all, the disclosure statement for each PI should provide complete and persuasive evidence that the PI has improved educational, research, or administrative practice, or has assisted the university or college to improve its direct services to the community.

11) If PIs limit academic freedom, as many PIs do, they should be re-shaped and re-formed until they do not. For this reason alone, PIs should be under the authority of the academic senate, whose powers are subject to checks and balances.

14) PIs do not ensure that an institution will be "learner-centred," since many of them are tools for standardization and do not take into account the intellectual diversity of learners. The public interest in higher education should in any case be defined to include all the work of higher education, and should arise from democratic principles, historic development, social, economic, and cultural need, and the moral standard of respect for individuals. It cannot and should not be defined by temporary fads. PIs linked to such fads may well distract from the public purpose and the public interest.

15) Faculty associations should guard against the use of PIs that deliberately or unintentionally promote the separation of teaching and research.

16) Faculty associations should ensure the academic work of university teachers and researchers is always assessed by peers and that this is done fairly. The academic senate should regularly review all PIs in use in all departments and faculties to verify their academic utility and cost, and should have the power of eliminating PIs that do not meet this test.

17) Faculty associations should guard against a culture of compliance that can easily arise from mindless application of PIs. Excellence is not produced by rules and bureaucracy but by professionals who have the freedom and the time to teach well and to undertake first-class research.

If Performance Indicators Are Imposed on You

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The faculty association and the university administration should require these kinds of transparency in their dealings with government (and this should be the subject of written agreements), or in collective agreements (where PIs are coming ftom the university administration or senate).

Discounting External Factors

All of us know of PIs that measure the "employability" of graduates, or the number of books per graduate in the university library, and so on. These PIs are not measures of university performance. In the case of employability, for example, they are a measure of the performance of the economy. In the case of library books, they are a measure of the priorities (and possibly the competence) of the university's financial officers.

Insist on discounting external factors when governments or administrations bring in PIs.

• for PIs on accessibility (that is, the equal access of people from all social backgrounds to publicly-funded higher education), the relevant factors are external to a high degree: general economic conditions, attitude of government and private sector to education and culture, and the level of funding offered to universities (with more funding, it is possible to ensure more access). Narrow university-based PIs on accessibility should be carefully discounted on these several grounds.

• for PIs on climate and governance inside the university: these are very largely within the power of university senates, administrations, and faculty associations. However, it will be a wise "user" of PIs who insists on checking whether external discounts may apply here, too.

• for research PIs: discount increases and decreases in funds allocated to the granting councils; discount fiscal and political factors that affect the number of journals and presses which may publish the results; discount economic facts that may encourage/discourage the creation and registration of patents.

• for PIs based on student evaluations of teaching: discount rising and falling popularity of certain subjects, programs, and degrees (which may lead to negative/positive evaluations of teaching, no matter what the reality); discount rising/falling levels of general student morale (for example, at a time of quickly rising student debt loads); discount the general unpopularity/popularity of the university administration.

• for *all* PIs: discount rising/falling public funding; discount overall government attitude to public education and to public services more generally.

PIs for Administrators & Government

Few PIs are likely to improve educational practice and provision in Canada. For this reason, we think that PIs should be limited in number and kind, and very carefully justified in all cases.

PIs of similar kinds should, nonetheless, be applied to administrators and to bureaucrats/politicians — for the very reasons that lead them to insist on PIs for us.

Collective Bargaining & Negotiation of PIs

Some supporters of PIs will argue that PIs are "system-wide," and that PIs detect efficiencies and inefficiencies in the "mechanism" of whole systems. They say that PIs have no implications for the individuals and the evaluation of individuals in those systems

This is false.

All PIs lead to changes in the way individuals are evaluated. For example, a system-wide PI on the "employability" of graduates may mean that professors in programs whose graduates are employed in fields outside their discipline(s), will come under criticism. If physics graduates turn up working in the agricultural industry, for example, then physics professors may find themselves asked to teach the "physics of agriculture," whether this is good physics or not! If the physics department does not change its curriculum in line with this particular PI, then it might face funding cuts (or some other sort of discipline). Individuals would find that their promotion and tenure depended very much on evidence that their teaching and research would contribute to an improvement in the all-important PI.

For that reason, *where PIs become part of the information stream for promotion and tenure decisions, such PIs should be subject to all the usual provisions of the collective agreement, and should be bargained in the appropriate ways.*

Comparisons of Universities & Colleges on PIs

Ask how inter-university and international comparisons of universities, using PIs, can be *reliably linked* to improvements in

• teaching practice and learning conditions

• levels of public funding for higher education

• levels of public confidence in higher education

Unless these linkages can be shown, and absent answers to the questions above, public funding should be withdrawn from the development and implementation of such PIs.

Competition & PIs

Supporters of PIs may claim that PIs encourage healthy competition among and between universities and colleges.

The underlying assumption is that competition produces improved educational practice, intensified research and development, increases in the energy and productivity of individuals in their private intellectual lives, levels of accessibility, greater employability, improved student learning and performance, and greater financial "efficiency."

Insist on seeing both arguments and evidence (cause-effect evidence, if you please) that competition produces each of these effects. Ensure that this evidence is published and subjected to peer review.

The argument for competition rests on several false assumptions. However, for the purposes of this checklist, I close this section with just one: the assumption that universities and colleges are not competing already, or not competing *enough*.

The evidence is that Canadian universities have been engaged in a massive and continuous competition for funds (private and public), for reputation, for the best professors, for the best students, for the most salubrious locations and buildings, and so on and on — and that this competition has been continuous and very public for more than 150 years.

Insist on proof that any further competition in the academic marketplace would be a good thing.

Use of PIs to Attack Departments, Faculties, & Individuals

The great danger of PIs is that they will be used to attack departments, faculties, and individuals.

It should be an aim of administrative policy, academic policy, and collective bargaining that PIs be used only for public information or the formation of public policy on higher education provision and funding. ■

(Professor Bill Bruneau is President of CAUT.)

This checklist was prepared by Bill Bruneau as chair of the ad hoc CAUT Committee on Performance Indicators and Accountability. It is not an official document of CAUT.

Professor Bill Bruneau can be contacted at william.bruneau@ubc.ca. Fax: 604-224-9242.

UNB Initiative Guarantees Involvement of Both Parties

THE FACULTY AND ADMINISTRATION of the University of New Brunswick have taken a positive step towards arriving at performance indicators following the last round of negotiations. Rather than forcing employees to react to the imposition of indicators by an employer, the UNB initiative ensures that both parties are involved on an equal footing, and that any measures of public accountability are customized to the particular mission of the university.

In the 1995 round of collective agreement negotiations UNB set up a joint performance indicator committee chaired jointly by the current president of the faculty association and the associate dean of arts. The committee terms of reference are: (a) to identify appropriate institutional performance indicators; (b) to recommend appropriate institutional performance indicators; (c) to recommend procedures for the collection and analysis of appropriate data; and (d) to recommend what uses (internal and external) could be made of the data. A series of objectives focused the committee mandate.

The process emphasized a two-way flow of information and ideas so that everyone in the university community would understand the goals sought through the use of performance indicators, their role in achieving these goals, and how to provide input.

The joint committee categorized institutional performance indicators by their purpose. Standard performance indicators set the context in which UNB works, and will be readily comparable with other institutions, while strategic performance indicators are specific to UNB and its detailed objectives.

The joint committee defined an initial set of standard indicators revolving around financial resources, human resources and infrastructure.

The initial strategic indicator areas to be considered include: quality of students attracted, timely completion of degrees, appropriateness of course delivery systems, overall teaching performance, quality of educational experience, student extra-curricular activities, subsequent student success, composition of graduating body, participation in scholarly activity, scholarly output, external funding, community involvement and leadership, equitable treatment, environment for growth and change, and financial responsibility.

The UNB committee has recommended the creation of an on-going performance analysis advisory group to advise the senior administration on long-term priorities. The advisory group would pick up where the joint performance indicator committee leaves off.

The main task ahead is converting the standard performance indicators and the strategic performance indicator areas into usable quantitative and qualitative measures. ■

For further information contact the Association of University of New Brunswick Teachers by email: aunbt@unb.ca.

PIs in University Libraries

FROM PAGE 7

cy across institutions and through time; ease vs. utility in gathering data; and values, meaning, and measurements."

Consistency

There is a great desire to make comparisons among institutions and to somehow rank or rate them according to some sort of objective criteria. In Canada we have the annual *Maclean's* ratings which pit universities against one another in a sort of competition or popularity game. The essence of the university is suddenly reduced to numbers. The ARL study points out that "lack of consistency in the way data are collected from institution to institution and in the way data are collected over time within the same institution creates problems" in doing these kinds of institutional comparisons and in assessing changes over time. It is very difficult to develop enforceable standards for reporting data, and university policy and practice should have regard to this fact.

Ease vs. Utility

It is especially tempting to develop performance indicators from data that can be easily collected. However, as the ARL study demonstrates "what is easy to measure is not necessarily what is desirable to measure." We must develop a system of gathering data which is linked to assessing our progress towards meeting our stated goals rather than setting goals based on the data that we are already collecting.

Values & Meaning

We must be very careful not to mistake the indicators that we develop for the value that is reflected in that indicator. Underlying academic and administrative values differ widely from library to library. One library may place a high priority on keeping unit costs for serial subscriptions low while another may think that providing more costly journals from the major publishers, which yields a higher unit cost, results in a higher quality service. Unit costs for collections are also greatly affected by the range of academic programs which the library must support and these in turn may reflect institutional values. Some universities have large multi-branch library systems and others have large concentrated central library facilities. When these institutions are compared by calculating the expenditures per student incorrect conclusions about relative efficiency vs. service delivered may be made.

In an article on *Performance Indicators in the Library and at Trent University* (CAUT *Bulletin*, Nov. '95, p. 3) Ken Field wrote: "Library stats tend to be out of context. When they are reported they do not show ... the level of success achieved by a user of the system. For instance, data on acquisitions, whether they be the amount of money spent on library acquisitions per student or the percentage of the library acquisitions budget out of the overall operating budget, will give one an idea of whether these amounts are rising or falling but they will not show the detrimental or positive effects that decreases or increases are having on the ability of faculty and students to carry out research or study."

The recently released CAUT *Policy on Performance Indicators* tells us that "the choice of indicators and PIs should be driven by policy — not the other way round. The fact that something can be measured should not mean that we necessarily measure it." For too long, libraries have fallen into this trap. It has been relatively easy to gather "statistics" but very difficult to translate these numbers into evidence of quality of service and of the satisfaction of our user community. This in turn makes it very difficult for us to justify demands for increased funding. ■

(Elizabeth Caskey is head of the David Lam Management Research Library at the University of British Columbia.)

Énoncé de principes sur les indicateurs de rendement

En novembre 1996, le Conseil de l'ACPPU a approuvé un énoncé de principes sur les indicateurs de rendement. Des extraits sont reproduits ci-dessous. Le document intégral est disponible sur le site W3 de l'ACPPU : www.caut.ca

8) L'association des professeurs et l'administration devraient négocier ensemble les indicateurs de rendement. Cela est particulièrement nécessaire dans le cas des indicateurs de rendement qui touchent notamment aux conditions d'emploi, aux conditions de la liberté universitaire, de la recherche, de l'enseignement, de la tâche, de la rémunération ou de l'avancement, etc. Les négociations comprendront une description détaillée des pouvoirs et des responsabilités de la personne ou du département chargé de créer des indicateurs, statistiques ou non. Le résultat devrait brosser un tableau clair et complet des indicateurs de rendement qu'il faut élaborer, déterminer la personne qui les mettra au point, qui les rassemblera. On précisera également comment les résultats seront publiés, comment ils feront l'objet d'une évaluation par les pairs, à quoi ils serviront en définitive, surtout si ce sont des ministres qui décideront de leur utilisation finale ou si les indicateurs risquent d'influer sur les normes de permanence et de promotion. Il faudrait publier chaque année le coût de mise en oeuvre et d'utilisation des indicateurs de rendement dans le rapport financier de l'université.

9) Les indicateurs de rendement devraient répondre à d'importantes questions sociales et pédagogiques : quelle est la mission historique de l'université ou du collège? Est-ce que la grande collectivité est la bienvenue? Est-ce que l'université ou le collège est accessible aux étudiants de toutes les classes sociales? Est-ce que les domaines principaux du savoir sont à l'étude ou font partie de la recherche? Quelle aide l'établissement donne-t-il à son personnel universitaire pour améliorer l'enseignement et la recherche? Comment la liberté universitaire est-elle défendue sur le campus? Comment satisfait-on les exigences des femmes et des groupes voulant l'équité? Est-ce que la bibliothèque est de bonne qualité et comment est-elle évaluée? Sur quels critères se fonde-t-on pour l'évaluer? Est-ce que les laboratoires scientifiques et les systèmes informatiques sont de bonne qualité? Comment sont-ils évalués et en fonction de quels critères? Comment ces caractéristiques ont-elles évolué avec le temps et pourquoi?

11) Si les indicateurs de rendement limitent la liberté, à l'instar de nombreux indicateurs de rendement, il faudrait alors les remanier jusqu'à ce qu'ils donnent des résultats positifs.

14) Les indicateurs de rendement ne garantissent pas qu'un établissement dispense un enseignement axé sur les besoins de l'apprenant, puisque nombre d'entre eux sont des outils de normalisation et ne tiennent pas compte de la diversité intellectuelle des étudiants. Il ne faudrait d'aucune manière que la définition de l'intérêt du public dans l'enseignement supérieur comprenne tout le travail de l'enseignement supérieur. Cet intérêt devrait découler de principes démocratiques, de l'évolution historique, des besoins sociaux, économiques et culturels, et de normes morales du respect d'autrui. On ne peut le définir par des modes temporaires. Les indicateurs liés à ces modes peuvent se détourner des objectifs publics et de l'intérêt du public.

16) Les associations de professeurs devraient s'assurer que les travaux universitaires des professeurs d'université et des chercheurs soient toujours évalués de manière juste par des pairs. Le conseil d'université devrait revoir régulièrement tous les indicateurs de rendement utilisés dans tous les départements et toutes les facultés afin de vérifier leur utilité universitaire et leur coût. Il devrait avoir le pouvoir d'éliminer les indicateurs de rendement qui ne répondent pas à ces critères.

17) Les associations de professeurs devraient se prémunir contre la culture de la conformité qui peut facilement survenir à la suite d'une application stupide des indicateurs de rendement. L'excellence n'est pas le fruit de régles ni de la bureaucratie mais naît de professionnels qui ont la liberté et le temps de bien enseigner ainsi que d'effectuer des recherches de qualité supérieure.

Rising Tuition Fees

FROM PAGE 1

closer to $8,000. If fees continue to rise, debt load will become even heavier. Prospective students may become reluctant to attain a higher education at the price of starting a working career with such a burden.

For institutions, tuition fee revenues have grown in importance so that they now account for almost 25 per cent of general operating funds, up from 13 per cent in 1980. Higher fee revenues derive from a mixture of larger enrolments as well as higher student fees. At the same time, the government share of the funding pie shrank from 84 per cent in 1980 to 72 per cent in 1995.

The pattern of rising fees, declining enrolments and inadequate government funding is also having an effect on the complement of university teaching faculty. A rash of early retirement incentive programs, coupled with fewer new hires and replacements, has led to an overall attrition in full-time faculty of approximately twelve hundred in the past two years. There is no recent data available to indicate if part-time hires are increasing as a result.

In Canada, education receives public funding because Canadians recognize the importance of a highly educated workforce in driving the nation's economy. In fact, when the Department of Finance undertook its 1996 opinion survey on economic issues, 93 per cent of Canadians surveyed ranked education as the most important issue facing the country. This same survey found that the majority of Canadians support measures that help the economy over the long term. One such long term measure is investing in a strong educational system.

Public support for higher education is strong, but public funding is eroding. Much is made of the role played by a highly educated population in placing Canada in a strong position in the "global economy."

Burdening youth with debt by removing public funds from the education system surely runs counter to achieving the country's goals. ■

1. Don Little. Financing Universities: Why are students paying more?" Statistics Canada. *Education Quarterly Review.* Summer 1997. Vol. 4, No. 2. Pages 10-26.

2. Statistics Canada. *The Daily.* August 25, 1997.

3. AUCC. Undergraduate enrolment forecasts: A tricky science. *Research File.* Vol. 2. No. 1. April 1997. Page 9.

Unity and Integration of Knowledge

The Association for the Unity and Integration of Knowledge is holding its 4th meeting at the University of Ottawa Learneds, May 27 to 29, 1998, and is requesting proposals for papers (500 words) on the following topics:

- *methods in integrating different disciplines*
- *unifying strategies for knowledge in general*
- *practical approaches to knowledge proliferation*

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The University of Calgary, 2500 University Drive NW,
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L'accès aux études supérieures compromis?

SUITE DE LA PAGE 1

rives d'emploi. Pendant les périodes de récession, où le taux de chômage est élevé, plus de gens retournent sur les bancs d'école pour améliorer leurs compétences. À l'inverse, lorsque l'économie reprend, moins de gens sont prêts à renoncer à un revenu pour augmenter leur scolarisation. Il est possible que le système d'enseignement postsecondaire soit en train de se stabiliser et que les taux de participation n'augmentent pas beaucoup plus que les niveaux actuels de 18 à 19 p. 100 pour la tranche des 19 à 24 ans. Toutefois, les hausses considérables des droits de scolarité sont également un facteur du ralentissement et de la baisse des inscriptions. Des hausses supplémentaires des droits de scolarité intensifieront la baisse des inscriptions et empêcheront, par le fait même, de nombreux étudiants de s'inscrire à l'université.

Les étudiants provenant de milieux moins favorisés sont touchés plus durement par des frais de scolarité plus élevés. À ce jour nous disposons de peu de statistiques sur les antécédents sociaux des étudiants. Le nouveau Centre des statistiques de l'éducation et le ministère du Développement des ressources humaines étudieront ce secteur. Les observateurs, cependant, commencent à se demander ce qu'il advient des étudiants moins bien nantis, une question que l'on ne s'était pas posé depuis la fin des années 1970. La situation en dent de scie des inscriptions au secteur postsecondaire est déjà inquiétante. Si l'effet de la hausse des frais de scolarité est cependant plus grave pour les familles à faibles revenus, on risque peut-être d'avoir encore plus de raisons de s'inquiéter.

D'après M. Little, les frais de scolarité moyens des étudiants à l'université ont augmenté de 62 p. 100 en termes réels de 1990 à 1995. En 1997-1998, les droits de scolarité au Canada ont grimpé de 9 p. 100 en moyenne. Les niveaux varient d'une province à l'autre, entre les établissements et entre les programmes. Cette année, par exemple, les étudiants en arts du 1er cycle paieront en moyenne 3117 $ par année, sans compter les fournitures ainsi que les frais de subsistance et d'hébergement[2].

La hausse des droits de scolarité et les modifications apportées au Programme canadien de prêts aux étudiants ont contribué à faire grimper le niveau d'endettement des étudiants des 2e et 3e cycles. En 1996, un groupe de travail fédéral sur la jeunesse a prévu que d'ici 1998, de nombreux étudiants entameraient leur carrière avec des dettes d'études de 25 000 $, une hausse de 8 700 $ par rapport à il y a huit ans[3]. Au Québec, où les droits de scolarité sont moins élevés et où il existe un solide régime de bourses en plus des prêts, le montant moyen de l'endettement étudiant se chiffre à 8 000 $. Toutefois, si les droits de scolarité continuent d'augmenter, l'endettement s'alourdira. Les futurs étudiants hésiteront peut-être à poursuivre des études supérieures au risque d'entreprendre une carrière avec de lourdes dettes.

Pour les établissements d'enseignement, les revenus découlant des droits de scolarité ont sensiblement augmenté et représentent maintenant presque 25 p. 100 des fonds généraux de fonctionnement, une hausse de 13 p. 100 par rapport à 1980. Ces revenus plus élevés proviennent d'un plus grand nombre d'inscriptions et des droits de scolarité plus élevés. De même, la part de financement du gouvernement a fondu, passant de 84 p. 100 en 1980 à 72 p. 100 en 1995.

La hausse des droits de scolarité, la baisse des inscriptions et le financement insuffisant du gouvernement sont des facteurs qui influent sur les effectifs professoraux. De nombreux programmes d'encouragement à la retraite anticipée, une diminution des nouvelles embauches et des remplacements ont donné lieu au départ d'environ 1200 professeurs à temps plein au cours des deux dernières années. Il n'existe aucune donnée récente révélant une hausse de l'embauchage de professeurs à temps partiel à la suite de ces départs.

Au Canada, l'éducation est financée par les deniers publics parce que les Canadiens et les Canadiennes reconnaissent l'importance d'une main-d'oeuvre hautement scolarisée pour diriger l'économie du pays. De fait, d'après un sondage que le ministère des Finances a mené en 1996 sur les questions économiques, 93 p. 100 des Canadiennes et Canadiens interrogés ont répondu que l'éducation était la préoccupation la plus importante à laquelle le pays faisait face. Le même sondage a révélé que la majorité des Canadiens et des Canadiennes appuyaient les mesures qui aident l'économie à long terme. L'une des ces mesures à long terme consiste à investir dans un système d'éducation fort. Toute la société profite d'une main-d'oeuvre scolarisée et apte au travail.

Le public appuie fermement l'enseignement postsecondaire mais le financement public s'étiole. On fait grand cas du rôle que joue une population active fortement scolarisée car elle place le Canada dans une solide position au sein de l'économie globale. Alourdir la dette des jeunes en retirant les fonds publics du système d'éducation va certainement à l'encontre des objectifs à atteindre pour le pays. ■

1. Don Little, «Financement des universités : Pourquoi les étudiants doivent-ils payer davantage?», Statistique Canada. *Revue trimestrielle de l'éducation.* Été 1997, Vol. 4. N° 2, Pages 10-26.

2. Statistique Canada. *Le Quotidien,* 25 août 1997.

3. AUCC. «La prévision des inscriptions au premier cycle : un exercice complexe. *Dossier de recherche.* Vol. 2, N° 1, avril 1997, page 9.

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Can Universities Tolerate Religion?

The Outrageous Idea of Christian Scholarship

George M. Marsden, New York: Oxford University Press, 1997; 152 pp.; hardcover $32.95 CAN.

The Soul of the American University

George M. Marsden, New York: Oxford University Press, 1994; 480 pp.; hardcover $51.95 CAN.

BY KEITH CASSIDY
University of Guelph

THESE BOOKS MAY ONE DAY be regarded as part of the beginning of a truly profound reassessment of the assumptions on which the modern university, and indeed most current intellectual discourse, are based. The appearance of *The Soul of the American University* elicited sharply divergent reactions in a wide variety of publications, but all reviewers agreed that the issues raised by Marsden were serious and fundamental. Together with the works of other scholars, such as Yale law professor Stephen Carter, whose *The Culture of Disbelief* appeared in 1993, these books place squarely on the academic agenda the issue of the role of religious belief in scholarship and public life. Given current debates about inclusivity and diversity in the university they have particular salience.

In *The Soul of the American University* Marsden attempts to find the route by which the universities of the United States, almost all of which were founded for explicitly religious, i.e. Christian, purposes, became bastions of secularism, in which religion holds, at best, a marginal place. Ironically, he argues, the exclusion of religion had its origins in precisely the American Protestant insistence on creating a single model for education, marginalizing those who, like Catholics, chose to have their own schools with their own ethos.

Marsden observes that "such universality was attained by defining intellectual aspects of the enterprise as excluding all but liberal Protestant or 'nonsectarian' perspectives." This dominance was short-lived, however, as "the logic of [its] nonsectarian ideals ... dictated that liberal Protestantism itself should be moved to the periphery to which other religious perspectives had been relegated for some time" (p. 5)

His account begins with the founding of Harvard and its attempts to reconcile Christian theology with the study, first of the pagan authors of the classical world, and later of the newly emerged natural sciences. The core of the study, however, is the crucial period in the nineteenth century which saw the creation of the modern university. Marsden focuses on a handful of these, such as Chicago, Michigan, California, and Johns Hopkins to establish his theme. Often led by pious liberal Protestants, these institutions adopted a view of religion which rejected doctrinal rigour and instead stressed a core of nonsectarian ethics. Believing that the advance of science could not create problems for liberal Protestantism, they embraced without reservation the scientific method as the road to truth. "The value-free ideal declared religion irrelevant to scientific inquiry" (p. 154). This, together with the emergence of an industrial, consumption oriented society in which the university's role was seen as serving the values of professionalism and specialization, meant that religion became fundamentally irrelevant to the university's functions. The outcome was implicit by the late nineteenth century, but it took decades for the logic of the situation to work itself out fully.

Marsden's stress on factors internal to the liberal Protestant viewpoint is persuasive. He acknowledges the importance of the social context in which the university functioned, but more attention to those pressures would have strengthened the book.

Marsden's account is thorough, well balanced and well written — professional history of a very high order. What is novel is his "Concluding Unscientific Postscript," in which he notes that "no historical interpretation lacks an agenda" and then makes his explicit. Having earlier made clear that he was "a fairly traditional Protestant of the Reformed theological heritage," from that perspective he asks if there are any compelling reasons for continuing the academic exclusion of religion.

Since the "scientific objectivity" in the name of which religion was marginalized has itself now attracted a host of critics, is it not now time, he inquires, to reconsider that result? Few academics believe in this "neutral" science, "and most would admit that everyone's intellectual inquiry takes place in a framework of communities that shape prior commitments. Such prior commitments might be arrived at on formal religious grounds or in some more informal way," but they are still prior commitments. "Hence there is little reason to exclude a priori all religiously based claims on the grounds that they are unscientific." (p. 430)

Admitting religion to the academy does not mean that anything goes: "What might be called procedural rationality is still necessary." The rules of evidence and logic still apply, and "private revelations" cannot preempt argument, yet while these principles "may preclude some extreme religious attitudes and viewpoints, there is no reason – that *no* religious viewpoint shall receive serious consideration." (p. 431)

He argues as well that a real commitment to pluralism means an openness to religious perspectives and notes the irony that "pluralism" is often conceived of "almost as a code word for its opposite, a new expression of the melting-pot ideal. Persons from a wide variety of races and cultures are welcomed into the university, but only on the condition that they think more-or-less alike." (p. 432)

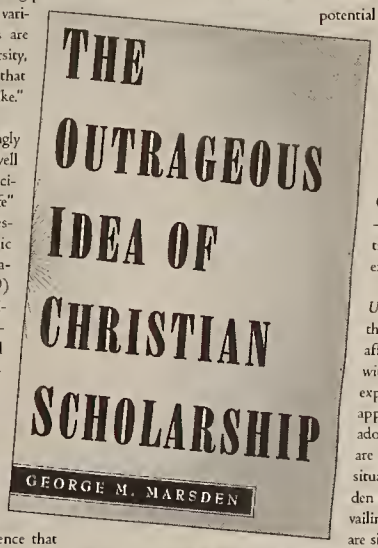
Marsden argues strongly for pluralism among, as well as within, universities. Society's "highest intellectual life" does not need to be "pressured to fit one monolithic mold into which all subtraditions are poured." (p. 439)

Concerns about religion's implications for academic freedom were valid when "an informal Christian establishment was still in place" (p. 434), but there is now little danger of a dominant religious belief imposing a general restriction on free inquiry. Indeed it is now usually an unstated insistence that only naturalistic viewpoints be taught which represents a creedal restriction on employment. While Marsden is probably correct in seeing religious believers as currently less dangerous to academic freedom than various secular ideologues, a fuller discussion of the nature of academic freedom in institutions with explicit religious commitments would have been in order.

The Soul of the American University received numerous reviews, in a variety of journals. There was wide agreement on the substantial merits of the purely historical character of the book, but predictably it was the twelve pages of the Postscript which attracted the most attention. It figured prominently in a lengthy exchange between Stanley Fish and Richard John Neuhaus in *First Things* and was the focus of an article and numerous letters in the *Chronicle of Higher Education*.[1] Many reviewers raised the same issues: one was the denial of the existence of a bias against religion in the academy, the other was to question just how religious perspectives could meaningfully be brought into intellectual discourse.

Marsden's reply to his critics is found in *The Outrageous Idea of Christian Scholarship*, where the ideas of the Postscript are elaborated. While his focus is on specifically Christian scholarship he notes (p. 8) that his arguments are more generally applicable to a variety of religious perspectives. He makes clear that the issue is not primarily one of overt persecution, but of an academic culture which encourages self censorship by the religiously committed.

A crucial section is his reply to the arguments made by Stanley Fish, that those "of religious conviction should not want to enter the marketplace of ideas, but to shut it down." Marsden grants that this is true of some believers, but



others he says, including religious conservatives, can "support the rules of liberal society" as part of God's plans. (p. 45) The core of his suggestion is that "there be room for explicit Christian points of view (just as there are explicit Marxist or feminist views) for those who will play by the other rules proper to the diverse academy ... I am simply proposing that the same rules apply to all." (p. 52)

He then turns to the question most insistently asked by his critics: given the adherence to the rules of the academic game, what difference can a Christian (or any) religious belief make? In reply he notes that the patterns into which we organize evidence are the product of our values and beliefs. As well the scholarly topics we pursue are in part a product of our commitments. This will be most evident, he suggests, in the humanities and social sciences, while less obviously so in the "hard sciences." Even there, however, there will be a subtle impact. A belief in God will shape our view of the universe, and specifically Christian beliefs will have their effect on our understanding of humanity and society.

Marsden does not see Christian perspectives (and he stresses that there are many such, not just one) as belligerents in a "culture war" but as participants in a discussion to which they have much to contribute and from which they have much to learn: "... it is important for Christian scholars to appreciate the positive value or insight that each of the "isms" of the age exaggerates ... they can learn from the spirit of the age they are ultimately opposing." (p. 100)

He concludes with suggestions about the institutional structures needed to sustain the scholarship he calls for, and reviews the resources and examples already in existence. While his focus is on Protestant scholarship, he notes the potential of Catholic universities to carry out the work called for. This may strike some as excessively optimistic, given the advanced secularization of most such institutions, or as Philip Gleason has put it, the "acculturation of Catholic higher education — that is, its accommodation to prevailing American expectations."[2]

In *The Soul of the American University* Marsden mentions the Canadian example of the affiliation of church colleges with universities as an unexplored alternative to the approach Americans finally adopted (p. 73).[3] Clearly there are differences between the situation described by Marsden in the U.S. and that prevailing here, but in general they are similar, and certainly in the widespread perception that the open discussion of the implications of religious belief (as opposed to, say, Marxist or feminist beliefs) is, at the very least, in bad taste.

In this country, as south of the border, a deep reappraisal of the role of religious belief in scholarship is in order, to move us beyond long held, unexamined beliefs which stand as barriers to a truly inclusive scholarship and university curriculum. While not without their limitations Marsden's books are essential reading for anyone — whatever their religious beliefs and opinions — concerned with the nature of the university. ■

(Keith Cassidy is a member of the history department at the University of Guelph and past president of the University of Guelph Faculty Association.)

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1. *First Things*, February, 1996 (Number 60), Stanley Fish, "Why We Can't All Just Get Along," pp. 18-26; Richard John Neuhaus, "Why We Can Get Along," pp. 27-34; Stanley Fish "A Reply to Richard John Neuhaus," pp. 35-40. This exchange led to a number of insightful letters, *First Things*, June/July, 1996 (Number 64), pp. 2-8; Carolyn J. Mooney, "Devout Professors on the Offensive" *Chronicle of Higher Education*, May 4, 1994, p. A18. Letters on this appeared in the *Chronicle* June 1, 1994, p. B4.

2. Philip Gleason, *Contending With Modernity: Catholic Higher Education in the Twentieth Century*. New York: Oxford University Press, 1995, p. 322.

3. See George Rawlyk, "Protestant Colleges in Canada: Past and Future" in George Marsden and Bradley Longfield, eds., *The Secularization of the Academy*. New York: Oxford University Press, 1992, pp. 278-302.

Professor Alan Andrews (Dalhousie) is the Bookshelf page editor; facsimile: (613) 820-2417; e-mail: andrews@is.dal.ca.

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ACCOUNTING

SAINT MARY'S UNIVERSITY — The Department of Accounting in The Frank H. Sobey Faculty of Commerce, Saint Mary's University, invites applications for a tenure track appointment in accounting. A particular need is the Information Systems area, but candidates in any area of accounting will be considered. The position commences September 1, 1998, pending budgetary approval. Successful candidates must have strong teaching and research credentials with a PhD in hand or near completion at the time of appointment. A professional accounting designation is also desirable. Saint Mary's is a public university with approximately 7,500 students. Saint Mary's offers a wide variety of undergraduate and graduate degrees, as well as supporting very active extension and part-time programs. The Frank H. Sobey Faculty of Commerce, with approximately 2,400 full and part-time students is the largest business program in Eastern Canada. Students pursue BComm, MBA, and EMBA degrees. A PhD degree program has been proposed and is expected to begin by 1998. The new Sobey Building housing the Faculty is currently under construction and will be completed by September 1998. The Department has a full-time teaching complement of thirteen, supported by approximately twelve part-time sessionals per semester. A wide range of Financial, Managerial, Auditing, Information Systems, and Taxation courses are offered at both the undergraduate and graduate levels. The Department graduates approximately 90 accounting majors per year. Applicants may submit a letter of application, curriculum vitae and the names of three references to: Dr. Bryan Emerson, Chair, Department of Accounting, Saint Mary's University, Halifax, Nova Scotia, B3H 3C3, or by fax: (902) 420-5119, tel: (902) 420-5271, email: bryan.emerson@stmarys.ca. Closing date for applications is January 31, 1998. This advertisement is directed to Canadian citizens and permanent residents. Saint Mary's University is committed to the principles of Employment Equity. Visit Saint Mary's University website at http://www.stmarys.ca

WILFRID LAURIER UNIVERSITY — The School of Business and Economics at Wilfrid Laurier University invites applications for three tenure-track positions in the Accounting area commencing July 1, 1998. Depending on qualifications and experience, most appointments will be made at the rank of Assistant Professor. The specific areas of expertise sought for these positions are tax, managerial, auditing and/or accounting information systems. Qualifications include PhD or ABD with evidence of strong research and teaching potential. The School has sixty-five full-time faculty in Business, fifteen hundred undergraduates and over two hundred and fifty part-time and full-time MBA students. Laurier's business programs focus on the development of applied general management knowledge, skills and attitudes. With a mission to achieve excellence in management education, we provide strong support for faculty to fully develop both their teaching and research capabilities. As a consequence, we are particularly interested in candidates who seek to maintain a balance between their scholarly and instructional pursuits and are committed to excellence in both. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents. The University is committed to employment equity and welcomes applications from all qualified women and men, including persons in a visible minority, persons with disabilities, and aboriginal people. All positions are subject to budget approval. Please direct applications to: Dr. Robert Ellis, Associate Dean of Business: Faculty Development & Research, School of Business & Economics, Wilfrid Laurier University, 75 University Ave. W., Waterloo, Ontario N2L 3C5.

UNIVERSITY OF WATERLOO — School of Accountancy. Applications are invite for a tenure track position in management accounting at the assistant or associate professor rank. The candidate should have a PhD in accounting with a specialization in management accounting and have a publication record that demonstrates an understanding of, and commitment to, research in auditing. The successful candidate will be responsible for teaching multiple sections of undergraduate- and/or graduate-level auditing accounting courses. A sound understanding of the foundations and institutional environment of auditing are necessary for these courses. Future graduate-level teaching assignments could include courses that focus on emerging issues in auditing. The salary range is commensurate with qualifications and experience. Appointment effective July 1, 1998. Send curriculum vitae and arrange for three letters of reference to be sent to Dr. Howard Armitage, Director, School of Accountancy, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. This appointment is subject to the availability of funds.

UNIVERSITY OF WATERLOO — School of Accountancy. Applications are invited for a tenure track position in finance at the assistant or associate professor rank. The candidate should have a PhD in accounting with a specialization in finance and have a publication record that demonstrates an understanding of, and commitment to, research in finance. The successful candidate will be responsible for teaching multiple sections of undergraduate- and/or graduate-level finance courses. A sound understanding of the foundations and institutional environment of finance are necessary for these courses. Future graduate-level teaching assignments could include courses that focus on emerging issues in finance. The salary range is commensurate with qualifications and experience. Appointment effective July 1, 1998. Send curriculum vitae and arrange for three letters of reference to be sent to Dr. Howard Armitage, Director, School of Accountancy, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. This appointment is subject to the availability of funds.

UNIVERSITY OF WATERLOO — School of Accountancy. Applications are invited for a tenure track position in auditing at the assistant or associate professor rank. The candidate should have a PhD in accounting with a specialization in auditing and have a publication record that demonstrates an understanding of, and commitment to, research in auditing. The successful candidate will be responsible for teaching multiple sections of undergraduate- and/or graduate-level auditing accounting courses. A sound understanding of the foundations and institutional environment of auditing are necessary for these courses. Future graduate-level teaching assignments could include courses that focus on emerging issues in auditing. The salary range is commensurate with qualifications and experience. Appointment effective July 1, 1998. Send curriculum vitae and arrange for three letters of reference to be sent to Dr. Howard Armitage, Director, School of Accountancy, University of Waterloo, Waterloo, Ontario N2L 3G1, Canada. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. This appointment is subject to the availability of funds.

AGRICULTURAL ECONOMICS

MCGILL UNIVERSITY — Department of Agricultural Economics. Applicants are invited for a tenure-track position at the assistant professor level in environmental and/or natural resource economics. Applicants should have a Ph.D. in agricultural economics or a closely related field. The successful candidate will be expected to develop an active research program in their area of specialty. Teaching responsibilities will include undergraduate courses and graduate courses in their area of expertise. Knowledge of the French language would be an asset. Salary is commensurate with qualifications. The starting date for the position will be February 1998. Applicants should send a curriculum vita, including a one page statement of their research and teaching interests, and arrange for three letters of reference to be sent to: Prof. Paul J. Thomassin, Chair, Department of Agricultural Economics, McGill University, 21,111 Lakeshore Rd., Ste Anne de Bellevue, QC, Canada H9X 3V9 (Tel: 514 -398-7828, fax 514-398-8139; e-mail Thomassin@agradm.lan.McGill.Ca). The closing date for applications is December 15, 1997, or until a suitable candidate is found. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents. McGill University is committed to equity in employment.

ANALYSIS

MCMASTER UNIVERSITY — The Department of Mathematics & Statistics, McMaster University, invites applications for a tenure track (probationary) Assistant Professorship starting July 1, 1998. Candidates should have a Ph.D. and proven researchability in a major area of Analysis, as well as capability in teaching. The salary will be based on qualifications and experience. This position is subject to final budgetary approval. McMaster is committed to Employment Equity and encourages applications from all qualified candidates, including aboriginal peoples, persons with disabilities, members of visible minorities and women. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian Citizens and permanent residents. Applications, including curriculum vitae and three letters of reference, should be received before December 1, 1997 by: I. Nambleton, Chair, Mathematics & Statistics, McMaster University, Hamilton, Ontario, Canada, L8S 4K1.

ANATOMY & CELL BIOLOGY

UNIVERSITY OF SASKATCHEWAN — Human Gross Anatomist. The Department of Anatomy and Cell Biology, College of Medicine, University of Saskatchewan invites applications for a non-tenure-track faculty appointment at the rank of Assistant Professor, effective July 1, 1998. Applicants must have experience in teaching medical gross anatomy and ideally histology and/or neuroanatomy. The appointee will coordinate the medical gross anatomy course and teach medical and other health/life science students. Candidates with an interest in the design and implementation of computer-assisted learning in clinical gross anatomy are encouraged to apply. Although the main responsibility is teaching, there will also be an opportunity for research/scholarly work. Research fields in the Department include cell biology, developmental biology, and neurobiology. An application, curriculum vitae, names of three referees, and statement of previous teaching experience and scholarly work should be submitted by November 30, 1997 to: Dr. G.D. Burkholder, Department of Anatomy and Cell Biology, College of Medicine, University of Saskatchewan, 107 Wiggins Road, Saskatoon, Saskatchewan S7N 5E5 Canada. The University is committed to Employment Equity. Members of designated groups (women, aboriginal people, people with disabilities and visible minorities) are encouraged to self-identify on their applications.

ANIMAL & POULTRY SCIENCE

UNIVERSITY OF GUELPH — The Department of Animal and Poultry Science is seeking a person to fill a tenure-track Assistant Professor position in Meat Science. Candidates must have a Ph.D. or equivalent degree, strong interests in research into muscle development and factors affecting meat quality, and the ability to interact with industry. The incumbent will be responsible for developing a vigorous research program as well as teaching at the undergraduate and graduate levels. A background in Animal Science is preferable, with potential for teaching widely across the Departmental program. The Department of Animal and Poultry Science has excellent computer and laboratory facilities (including a large federally-approved meat slaughtering and processing suite), access to extensive animal holding facilities, close ties with industry and collaborations with animal scientists throughout the world. For the first 5 years, 50% of the position will be funded by the Ontario livestock and meat industry. The incumbent will be expected to seek operating funds from the NSERC-New Faculty Support program, which matches industry funds for up to the first 3 years of a new position. The position will be available May 1, 1998, pending funding. The application with a statement of interest in the position, a full resume and the names of three persons who may be contacted for references should be submitted by November

UNIVERSITY COLLEGE of the FRASER VALLEY

The University College of the Fraser Valley (UCFV), located 80 kilometres from Vancouver in British Columbia's beautiful Fraser Valley, is a multi-campus undergraduate degree-granting institution offering a diversity of programs. UCFV has main campuses in Abbotsford and Chilliwack, B.C. and currently enrols more than 6,000 students each year plus 15,000 continuing education students. As the major post secondary and adult educational institution for the communities of the Fraser Valley, UCFV offers over 70 different degree, diploma and certificate programs. The operating budget is $35,000,000 with faculty and staff numbering 600.

President & CEO

UCFV is searching for a new President to assume office in June 1998. This is an opportunity to lead one of the most respected institutions in British Columbia. The successful candidate will build on this institution's outstanding achievements in teaching, scholarship and community service, while honouring UCFV's commitment to meeting the needs of the more non-traditional and access learners. The successful candidate will have a vision that will inspire the institution to reach new levels of educational excellence. He/she will also continue to maintain an atmosphere of collegiality and collaboration.

This position requires an individual with proven leadership ability preferably gained in a comprehensive multi-campus environment. Strong communications skills coupled with a high level of interpersonal strengths are required. Candidates should have a background demonstrating a strong commitment to teaching excellence and scholarly achievement. The successful candidate must have the ability to think in an entrepreneurial dimension. It is expected that the candidate will have outstanding academic credentials, with an earned doctoral degree, and have demonstrated success at a senior administrative level.

Applications, including three references, and nominations should be forwarded to the address below. More information can be found about UCFV on its web site www.ucfv.bc.ca. The search committee will begin to review applications on December 1, 1997.

Respond in confidence to: Christopher Davies, Management Connections Incorporated, 1900 - 1095 West Pender Street, Vancouver, BC. V6E 2M6. FAX: (604) 685-5187; E-mail: mcisearch@bc.sympatico.ca.

UCFV is committed to the principle of equity in employment.

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University of Toronto

Writer-In-Residence Fellowship 1999

Applications are invited from creative writers who are Canadian citizens or landed immigrants for this four-month appointment during January-April 1999.

The Fellowship entails:

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- conducting a weekly non-credit writing seminar and its attendant duties of commentary and consultation with a set number of qualified students;
- maintaining two open office hours weekly for consultations with students from across the University;
- submitting a final report on activities associated with the Fellowship.

A stipend of $20,000.00 will be paid to the recipient, who will be appointed a Senior Resident at Massey College.

Applications should include five copies of a curriculum vitae; a single-page statement of your plans for the seminar; plus any other directly relevant materials (such as references from sponsors and clientele of earlier writer-in-residence appointments, if applicable). The Committee cannot consider incomplete applications. Please do not send samples of writing or tapes. Include address and, where possible, tel/fax/e-mail numbers.

Applications should be sent to:
Writer-in-Residence Fellowship Committee
Department of English
University of Toronto
Toronto, ON M5S 1A1

Deadline: All entries must be postmarked by **January 3, 1998.** Applicants will be informed of the outcome by the end of February 1998.

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30, 1997, to Dr. Ann M. Gibbins, Chair, Department of Animal and Poultry Science, University of Guelph, Guelph, Ontario, Canada N1G 2W1; e-mail: agibbins@aps.uoguelph.ca, web site: http://www.uoguelph.ca. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Guelph is committed to an employment equity program that includes special measures to achieve diversity among its faculty and staff. We, therefore, particularly encourage applications from qualified aboriginal Canadians, persons with disabilities, members of visible minorities, and women.

UNIVERSITY OF GUELPH — The Department of Animal and Poultry Science is seeking a person to fill a tenure-track Assistant Professor position in Dairy Cattle Genetics. The successful applicant will have a Ph.D. in Animal Breeding preferably with expertise in animal models, genetic parameter estimation and applications of molecular genetics to dairy cattle improvement. Candidates must have strong interest in applying genetics to the improvement of dairy cattle, and the ability to interact with industry. The incumbent will be responsible for developing a vigorous research program as well as teaching at the undergraduate and graduate levels. A background in Animal Science is preferable, with potential for teaching widely across the Departmental program. The incumbent will be a member of the Centre for Genetic Improvement of Livestock, which consists of a large complement of scientists drawn from several departments in the University. The Centre and the Department of Animal and Poultry Science have excellent computing and laboratory facilities, access to data bases, access to extensive animal holding facilities, and close ties with industry. The position will be available May 1, 1998. The appointment is subject to final budgetary approval. Applications with a statement of interest in the position, a full resume and the names of three persons who may be contacted for references should be submitted by November 30, 1997, to Dr. Ann M. Gibbins, Chair, Department of Animal and Poultry Science, University of Guelph, Guelph, Ontario, Canada N1G 2W1; e-mail: agibbins@aps.uoguelph.ca; web site: http://www.uoguelph.ca. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Guelph is committed to an employment equity program that includes special measures to achieve diversity among its faculty and staff. We, therefore, particularly encourage applications from qualified aboriginal Canadians, persons with disabilities, members of visible minorities, and women.

UNIVERSITY OF GUELPH — The Department of Animal and Poultry Science is seeking a person to fill a tenure-track Assistant Professor position in Environmental Physiology. Candidates must have a Ph.D. or equivalent degree, experience in the effects of the environment on animal physiology, welfare and productivity, strong interests in ethology, and the ability to interact with industry. The incumbent will be responsible for developing a strong research program as well as teaching at the undergraduate and graduate levels. A background in Animal Science is preferable, with potential for teaching widely across the Departmental program. The Department of Animal and Poultry Science has excellent laboratory and computing facilities, access to extensive animal holding facilities, close ties with industry and collaborations with animal scientists throughout the world. The position will be available May 1, 1998. The appointment is subject to final budgetary approval. Application with a statement of interest in the position, a full resume and the names of three persons who may be contacted for references should be submitted by November 30, 1997, to Dr. Ann M. Gibbins, Chair, Department of Animal and Poultry Science, University of Guelph, Guelph, Ontario, Canada N1G 2W1; e-mail: agibbins@aps.uoguelph.ca, web site: http://www.uoguelph.ca. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Guelph is committed to an employment equity program that includes special measures to achieve diversity among its faculty and staff. We, therefore, particularly encourage applications from qualified aboriginal Canadians, persons with disabilities, members of visible minorities, and women.

ANTHROPOLOGY

TRENT UNIVERSITY — Subject to budgetary approval, applications are invited by the Department of Anthropology at Trent University for a tenure-track appointment at the Assistant Professor level commencing July 1, 1998. The salary for this position will be dependent upon the qualifications and experience of the candidate. A completed PhD is required. We are seeking a Socio/Cultural Anthropologist with field experience and a strong background anthropological theory who could teach courses in gender and ethnographic field methods. Candidates are also expected to participate fully in the M.A. program in Cultural Anthropology. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. Trent University is an employment equity employer and especially invites applications from women, aboriginal people, visible minorities, and disabled persons. Please send a Curriculum Vitae, a description of research and teaching interests, and the names of three referees to Professor Joan M. Vastokas, Chair, Department of Anthropology, Trent University, Peterborough, Ontario, Canada, K9J 7B8. Please provide telephone number, e-mail address and/or fax number. Deadline for receipt of applications is December 15, 1997.

HARVARD UNIVERSITY, Department of Anthropology, seeks to appoint a senior anthropologist to the William Lyon Mackenzie King Professorship of Canadian Studies. The successful candidate should have a distinguished record of teaching and research in areas connected with ethnicity, nationalism, indigenous rights and the constitutional challenges posed by these issues. Women and minorities are strongly urged to apply. Applicants should send a letter describing their present work and future research plans together with a CV to Peter Ellison, Chair, Department of Anthropology, Harvard University, Peabody Museum, Cambridge, MA 02138 (USA) by 12/31/97. EOE/AAE.

UNIVERSITY OF VICTORIA — Department of Anthropology. Applications are invited for a tenure track Assistant Professor position in cultural anthropology beginning July 1, 1998. Applications are sought from individuals who have expertise and ongoing research programs in Northwest Coast ethnology and are qualified to teach two or more of the following courses: Ethnology of the Northwest Coast, Ethnology of the Northwest Interior, Contemporary Aboriginal Peoples of Canada. Topical and theoretical interests are open. Individuals who have completed the PhD are preferred. Applications, including a curriculum vitae and the names of three references, should be sent to Prof. William Alkire, Chair, Department of Anthropology, University of Victoria, P.O. Box 3050, Victoria, B.C., Canada, V8W 3P5. The position will be advertised until filled but the review of applications will begin on March 1, 1998. The University of Victoria is an employment equity employer and encourages applications from women, persons with disabilities, visible minorities, and aboriginal persons. Persons of First Nations background are especially encouraged to apply. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Others are also encouraged to apply but are not eligible for appointment until a Canadian search is completed and no appointment made.

THE UNIVERSITY OF WESTERN ONTARIO — The Department of Anthropology, University of Western Ontario, invites applications for a probationary tenure track full-time appointment in Sociocultural Anthropology at the Assistant or Associate Professor level. Theoretical and Geographical areas of specialization are open. Applicants must have a PhD and should have an active research and publication record and teaching experience. The current salary floor for Assistant Professor is $45,000 and for Associate Professor is $52,000. Positions normally commence on July 1, 1998. Applicants must send a curriculum vitae and the names and addresses of three referees before January 15, 1998 to Dr. Christopher Ellis, Chair, Department of Anthropology, University of Western Ontario, London, Ontario, Canada N6A 5C2. Fax #: (519) 661-2157; Dept #: (519) 661-3430 or E-mail: ellis@sscl.uwo.ca Positions are subject to budget approval. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian Citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

APPLIED MATHEMATICS

MCMASTER UNIVERSITY — The Department of Mathematics & Statistics, McMaster University, invites applications for a tenure track (probationary) Assistant Professorship starting July 1, 1998. Candidates should have a Ph.D. and proven research ability in a major area of Applied Mathematics, as well as capability in teaching. The salary will be based on qualifications and experience. This position is subject to final budgetary approval. McMaster is committed to Employment Equity and encourages applications from all qualified candidates, including aboriginal peoples, persons with disabilities, members of visible minorities and women. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian Citizens and permanent residents. Applications, including curriculum vitae and three letters of reference, should be received before December 1, 1997 by: I. Hambleton, Chair, Mathematics & Statistics, McMaster University, Hamilton, Ontario, Canada, L8S 4K1

ARABIC & ISLAMIC STUDIES

UNIVERSITY OF ALBERTA — The Faculty of Arts at the University of Alberta is engaged in an extensive process of staff renewal, and is committed to ensuring that the substantial number of hirings anticipated over the next several years will secure for the future the lively and productive scholarly environment on which it prides itself. The Department of Modern Languages and Comparative Studies, the University of Alberta, is seeking to fill an entrance level tenure-track position in Arabic and Islamic Studies by 1 July 1998. Entry level salary for assistant professors is currently $39,490. The candidate should have native or near native competence in Arabic and should demonstrate excellence in language teaching, and in some aspect of Arabic literature. In Islamic Studies, any area of study will be considered except Middle Eastern Sufism; scholars with research competence in women and Islam would be particularly welcome. The successful candidate must have a completed Ph.D. and is expected to teach a minimum of three language courses with the remainder in Studies. At the University of Alberta a Consortium of Middle Eastern and African Studies is developing and the candidate will have the opportunity to participate in and cooperate with this programme. Letters of application, CVs, all university transcripts, and letters from three referees should be sent by December 15, 1997 to Dr. Earle Waugh, Chair, Department of Modern Languages and Comparative Studies, The University of Alberta, Edmonton, Alberta, Canada, T6G 2E6. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered. The University of Alberta is committed to the principle of equity in employment. As an employer, we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

ART, ORAMA & MUSIC

MCMASTER UNIVERSITY — The School of Art, Drama & Music at McMaster University invites applications for a tenure-track position, effective July 1, 1998. This appointment, which is subject to final budgetary approval, will be made at the Assistant Professor level for which the minimum salary is $41,260. Candidates must have a PhD, a demonstrated commitment to research and a proven record of teaching excellence at the undergraduate and graduate levels. Applications from persons who have expertise in arts criticism will receive priority. The successful candidate will be expected to contribute to a graduate programme in Arts Criticism; to teach a range of courses in the undergraduate Drama programme which integrate the practice; history and theory of theatre and film; to collaborate in student-directed productions and other theatrical activities; and to support the interdisciplinary direction of the School through a course in Media Studies/Communications. Interest and a bility in technology-based learning will be an asset. Letters of application, including a complete cv and an example of the candidate's recent research, should be sent to Dr. Hugh Hartwell, Director, School of Art, Drama & Music, McMaster University, 1280 Main Street West, Hamilton, Ontario, L8S 4M2. Candidates should ask three referees to send letters directly to the School, and should arrange for the Director to receive undergraduate and graduate transcripts. Only complete applications will be considered; candidates are responsible for ensuring that transcripts and letters of reference are received by the School.

Applications received before January 15, 1998 will be assured of consideration. McMaster University is committed to employment equity and encourages applications from all qualified candidates, including aboriginal peoples, persons with disabilities, members of visible minorities and women.

ASIAN STUDIES

UNIVERSITY OF BRITISH COLUMBIA — The Department of Asian Studies at the University of British Columbia seeks to hire an instructor in Indonesian Language for the second term of the 1997-98 school year only (January-April 1998). The successful applicant will be expected to have completed a university degree or its equivalent. Indonesian language teaching experience in North America at the college or university level is required. The salary will be approximately $9,000.00 for the period. Send application letter, curriculum vitae and addresses of three referees to Dr. Ken Bryant, Head, Department of Asian Studies, University of British Columbia, 403-1871 West Mall, Vancouver, BC V6T 1Z2. Deadline for receipt of applications is December 1, 1997. The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered. The University of Alberta is committed to the principle of equity in employment. As an employer, we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

ASTRONOMY & PHYSICS

UNIVERSITY OF TORONTO — The Departments of Astronomy and Physics will make a tenure track appointment to the rank of Assistant Professor with an expected starting date of July 1, 1998. This is one of a number of appointments being made in the Department of Astronomy, Department of Physics and the Canadian Institute for Theoretical Astrophysics. We seek candidates with a Ph.D. in Astronomy and/or Physics, with proven or potential excellence in both research and teaching. Our goal is to find a candidate with either a theoretical or experimental background who will promote interaction between the departments. The appointment will be made in the area of astrophysics, broadly defined as the interface between astronomy and physics. This includes, but is not limited to, cosmology, nonlinear dynamics, and plasma, particle, nuclear and high energy astrophysics. We invite prospective candidates to visit our home pages at http://www.(astro,physics,cita).utoronto.ca/. Salary will be commensurate with qualifications and experience. Applications, including a curriculum vitae and three letters of reference, should be sent to: Professor Pekka K. Sinervo, Chair, Department of Physics, University of Toronto, 60 St. George Street, Toronto, Ontario, Canada M5S 1A7 or Professor E.R. Seaquist, Chair, Department of Astronomy, University of Toronto, 60 St. George Street, Toronto, Ontario, Canada M5S 3H8. The deadline for the receipt of applications and letters of recommendation is January 15, 1998. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. The University of Toronto is committed to employment equity and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

BIOCHEMISTRY

MCMASTER UNIVERSITY — A post-doctoral position is available for an individual interested in gene regulation in mammalian and/or viral systems. Areas of interest include functional characterization of transcription factors, assembly of protein DNA complexes, mechanisms of transcription activation/repression. Applicants with a strong background in molecular biology and biochemistry are encouraged to apply. Experience in tissue culture, yeast expression, molecular virology, and/or interaction cloning is highly desirable. Applicants should send a curriculum vitae and three letters of reference to Dr. John F. Capone, Professor and Chair, Department of Biochemistry, McMaster University, 1200 Main St. West, Hamilton, ON L8N 3Z5.

BIOLOGY

UNIVERSITY OF WATERLOO — The Department of Biology of the University of Waterloo invites applications for two tenure track positions at the Assistant Professor level, one in animal physiology and one in ecology. Applicants must have a PhD and be prepared to establish a active research program. Duties include research, teaching at the undergraduate and graduate levels, and graduate student supervision. In addition to being able to teach either animal physiology or ecology, candidates should be able to teach at least one of environmental toxicology, quantitative ecology/modelling, fisheries, genetics or immunology. For the animal physiology position, we are particularly interested in candidates in the areas of environmental toxicology or environmental physiology, or using molecular approaches to explore an aspect of animal physiology. For the ecology position, we are looking for someone to complement our strong research group in aquatic ecology. Salary will be commensurate with qualifications and experience. Applicants should send their curriculum vitae, the names of three individuals willing to furnish letters of reference, and an outline (1-2 pages) of their proposed research program to: Dr. William D. Taylor,

Dean - Faculty of General Studies

We are seeking a dean committed to interdisciplinarity, to students, to colleagueship and to scholarship. The ideal candidate has a strong academic reputation, administrative experience, and is sensitive to emerging pedagogical issues and to issues of gender and cultural diversity. She or he will facilitate and adapt to change, advocating for the Faculty in the University and the wider community.

The Faculty of General Studies is an innovative, interdisciplinary faculty offering undergraduate and graduate degrees in nine interdisciplinary majors, along with minors, non-major degrees and joint degrees with other faculties. Approximately 450 students are registered as majors in General Studies programmes, 370 in non-major degrees, and 45 in graduate degrees. The Faculty is also home to some 12,000 first-and second-year students who have not yet declared a major.

The University is engaged in a bold, collegial process of strategic transformation to advance the University's distinctiveness and to match the vibrancy and dynamism of Calgary. Situated in the foothills of the Rockies, Calgary has a highly educated population of 750,000, a thriving cultural life, and abundant recreational opportunities.

The appointment temi will be for five years, commencing July 1, 1998.

Closing date for applications is January 15, 1998. All replies will be held in complete confidence.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary is committed to Employment Equity. Nominations or letters of application, together with a detailed curriculum vitae and the names of three refcrees, should be sent to:

Dr. R. Bond
Acting Vice-President (Academic)
The University of Calgary
2500 University Drive N.W.
Calgary, Alberta T2N 1N4

THE UNIVERSITY OF CALGARY

www.ucalgary.ca

UNIVERSITY OF WINDSOR

Faculty Positions in Communication Studies, Education, Law, Mechanical Engineering, and Chair, Social Work Program

Applications are invited for the following positions commencing July 1, 1998 (subject to final budgetary approval). Application deadline for all positions is January 15, 1998. Submit applications to the appropriate individual at the **University of Windsor, Windsor, ON, N9B 3P4, (519) 253-3000.**

Communication Studies: a tenure-track position at the assistant professor level. Applicants must have a PhD in Communication Studies or related discipline, show evidence or promise of excellence in teaching and research, and have experience in media design and production. Applicants will teach courses, from a theoretically and critically informed perspective, in the media practices stream (such as media writing, film/video production) and should be prepared to teach in one or more of the following areas: theory, policy, cultural studies, or research methods. Applicants must submit a portfolio which includes sample productions, a summary of teaching experience and a sample of publications and research. This position is a tier-two search and is open internationally.

Communication Studies: a tenure-track position at the associate or full professor level. Applicants must have a PhD in Communication Studies or related discipline and a significant record of successful teaching, research, and publication. Experience in administration or media practices would be an asset. Applicants must be able to teach courses from a theoretically and critically informed perspective in one or more of the following areas: inter-cultural communication, international communication, policy, theory, the political economy of communication, cultural studies, media practices, or research methods. Submit a letter of application, a curriculum vitae, and arrange to have three letters of reference forwarded directly to **Professor Mary Gold, Communication Studies Program**, ext. 2896, FAX: (519) 971-3642.

Faculty of Education: two-tenure track positions at the the assistant professor level.

1) **Educational Administration:** teaching pre-service and graduate courses in the areas of school law, educational administration, and supervision.
2) **Social Science:** teaching pre-service courses in intermediate/senior geography, history, individual and society; general social science methodology and organizational behaviour; and in-service additional qualification course in social science (grades K-12)

Applicants must have a doctoral degree, a teaching certificate and be eligible to obtain the Ontario Certificate of Qualification, and show evidence or promise of excellence in teaching and research. Submit a letter of application, a curriculum vitae, and arrange for three letters of reference to be forwarded directly to: **Dr. Michael A. Awender, Dean, Faculty of Education**, ext. 3800, FAX (519) 971-3612.

Faculty of Law: a tenure-track position at the assistant professor level in the area of corporate/commercial law. Applicants must have an appropriate graduate degree, preferably a doctoral degree, and a demonstrated record or potential for excellence in teaching and research. Submit a letter of application, a curriculum vitae, and arrange for three letters of reference to be forwarded directly to: **Dean Juanita Westmoreland-Traore, Faculty of Law**; ext. 2930; FAX (519) 973-7064.

Mechanical and Materials Engineering: a tenure-track faculty position at the assistant professor rank in the area of Solid Mechanics/Manufacturing Automation. Primary consideration will be given to applicants having a strong foundation in broad areas of solid mechanics and/or dynamics, vibration, and control systems. Applicants must have an undergraduate degree in engineering, a PhD in Mechanical Engineering, be eligible for Professional Engineering registration in Ontario, and demonstrate potential or proven ability for excellence in teaching and research. Industrial experience, particularly in the automotive and manufacturing areas is desirable. Applicants will be expected to be able to teach undergraduate and graduate courses in solid mechanics and control, undergraduate courses in general engineering, and supervise graduate students. This position will involve liaison with relevant research groups including the Manufacturing Automation Group and the NSERC/Chrysler Chair in Mechanical Engineering Design. Submit a letter of application, a curriculum vitae, and the names of three referees to: **Dr. Norm Wilson, Dean, Faculty of Engineering**; ext. 2566, FAX: (519) 971- 3622.

Social Work, Chair of the Social Work Program. The position of chair is for a 3 to 5 year term and may be renewed. The successful candidate will be eligible for appointment to a tenure-track position at an appropriate rank. Applicants should hold a professional social work degree and must hold a DSW or PhD. They must also have a successful record in teaching at the university level and a strong record of peer-adjudicated scholarship as well as considerable experience in social work practice. Evidence of successful administrative experience is required. The Social Work Program offers an undergraduate program with approximately 60 BSW graduates per year. A new MSW program has recently been approved and is scheduled to begin in 1998. The Chair will be expected to play a major role in enhancing the stature of the Social Work Program, working constructively with faculty, staff, students, and members of the community to foster scholarship, research, program development, and professionalism. Submit a letter of application, a curriculum vitae, and names of three referees to: **Dr. Mary Lou Dietz, Interim Chair, Social Work**; ext. 3067; FAX: (519) 973-7036; e-mail: merner@uwindsor.ca

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Windsor is committed to equity and diversity in the workplace and welcomes applications from Aboriginal peoples, persons with disabilities and members of visible minorities. Applications from women are particularly encouraged.

CLASSIFIEDS

Professor and Chair, Department of Biology, Faculty of Science, University of Waterloo, Waterloo, Ontario, N2L 3G1 Canada. The closing date for applications is November 30, 1997. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. These appointments are subject to the availability of funds. Additional information on the Department is available at http://www.science.uwaterloo.ca/biology/biology.html

BUSINESS

QUEEN'S UNIVERSITY, School of Business invites applications for tenure track positions in the following areas: management information systems; operations/services management; financial accounting; and, industrial marketing. Candidates must have a PhD or be near completion. The level of appointment is open and the positions are subject to final budgetary approval. We are especially interested in outstanding teachers who also have demonstrated research potential. The School of Business has an acknowledged reputation in executive education and in degree programs including: innovative, privatized MBA studies, our flagship undergraduate Commerce program; a new Master's of Science in Management; and our respected PhD. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Queen's university is committed to employment equity and welcomes applications from all qualified women and men, including visible minorities, aboriginal people, persons with disabilities, gay men and lesbians. In all cases, salary will be commensurate with qualifications and experience. The effective date for each appointment is July 1, 1998. Applications will be accepted until the positions are filled and should be submitted to Wm. E. Mallas, Associate Dean, School of Business, Queen's University, Kingston, Ontario K7L 3N6 [Fax: (613) 545-2013] [e-mail: mallasw@qsilver.queensu.ca]

UNIVERSITY OF ALBERTA — Faculty of Business. Applications are sought for a full-time continuing position in operations management, effective 1 July 1998, at the assistant professor level. The position is subject to funding. PhD or equivalent required, or candidate should be at the completion stage of degree. Salary depends on qualifications. Candidates should have a strong quantitative background that spans the methodologies of optimization, stochastic modeling and statistics, and should be interested in pursuing research and teaching in operations management broadly defined. Natural resources/environmental modeling, transfer of technology, or operations in the service sector are of particular interest. A demonstrated potential for high quality research and teaching is required. An ability to interact with the business community is important. The department often courses in operations management, modeling and statistics at the undergraduate, MBA and PhD levels. Competitive remains open until the position is filled. Send resumes to Glen Murray, Chair, Department of Finance and Management Science, Faculty of Business, University of Alberta, Edmonton, Alberta, Canada, T6G 2R6. Phone: (403)492-2457 fax (403) 492-9924. The University of Alberta is committed to the principle of equity in employment. As an employer, we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

THE UNIVERSITY OF WESTERN ONTARIO — Global Environment of Business. Probationary Tenure Track Faculty Position. The Richard Ivey School of Business (formerly Western Business School) is recognized worldwide for the quality of its management education. The School's major activities include: a highly regarded MBA program; a small and selective undergraduate program; a well-established doctoral program; as well as an expanding portfolio of programs for managers, including a traditional Executive MBA program and an Executive MBA delivered via videoconferencing. The School is internationally oriented in terms of curricula, research, faculty, and student exchanges. The School supports high quality faculty research dealing with issues of interest and relevance to practicing managers. Excellence in teaching and course development is highly valued. The faculty is collegial and engages in interdisciplinary investigation. The School is located in London, Ontario, a community of 326,000 which is equidistant from Toronto and Detroit. The videoconferencing broadcast studio is located at the School and video sites include Burnaby (just outside Vancouver), Calgary, Edmonton, Markham (outside Toronto), Montreal and London. Our Executive MBA facility is situated in Mississauga, just west of Toronto. Road, air and train links to major Canadian and U.S. cities are excellent. The School is part of a larger University community with the equivalent of 26,000 full-time students. The School is also embarking on a substantial program of teaching and research activities in Asia and Latin America. The School seeks candidates for a probationary tenure track or limited term position at the level of Assistant or Associate Professor in the Global Environment of Business (GEOB) area group. The position is available to begin in July 1998. Areas of interest/concentration of the faculty in the GEOB area include multinational strategy, international trade and investment, sustainable development, ethics, corporate governance, business-government relations, the changing nature of employment, technological change, and various elements of economics. The successful candidate will demonstrate a strong commitment to the practice of management in both research and teaching. A background in an underlying discipline such as economics (micro or macro), political science, or political economy would be an asset, as would a regional focus supported by a foreign language capability. This position is subject to budget approval. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and Permanent Residents of Canada. The Richard Ivey School of Business and The University of Western Ontario are committed to employment equity, welcome diversity in the workplace, and encourage applications from qualified individuals including women, members of visible minorities, aboriginal persons and persons with disabilities. Applicants should send their Curriculum Vitae to Trevor Hunter, GEOB Course Coordinator, Richard Ivey School of Business, The University of Western Ontario, London, Ontario, Canada N6A 3K7. Phone: 519-661-2141; Fax: 519-661-3959; e-mail: thunter@ivey.uwo.ca

BUSINESS ADMINISTRATION & COMMERCE

SIMON FRASER UNIVERSITY — The Faculty of Business Administration, Simon Fraser University, invites applications for entry level tenure-track appointments in: Financial Accounting, Managerial Accounting, Organizational Behavior (micro), and Marketing Management/Strategy. A PhD in hand or near completion is required. Successful candidates will have strong research and teaching abilities with established research programs in one of the areas above and an interest in teaching at both the undergraduate and graduate levels. Start date: September, 1998 or at a mutually agreed upon time. In accordance with Canadian immigration requirements, this announcement is directed, in the first instance, to Canadian citizens and Permanent Residents. Simon Fraser University is committed to the principle of equity in employment and offers equal employment opportunities to qualified applicants. All positions are subject to budgetary approval. Send curriculum vitae and the names of three referees to: Dr. Lawrence T. Pinfield, Chair, Appointments Committee, Faculty of Business Administration, Simon Fraser University, 8888 University Drive, Burnaby, British Columbia V5A 1S6 Canada. The search will close on November 28, 1997 or when the positions are filled.

BUSINESS & ECONOMICS

WILFRID LAURIER UNIVERSITY — The School of Business & Economics at Wilfrid Laurier University invites applications for tenure-track positions in the Finance, Policy, and Operations and Decision Sciences areas commencing July 1, 1998. Depending on qualifications and experience, more appointments will be made at the rank of Assistant or Associate Professor. The specific areas of expertise sought for the Finance position are derivatives and/or insurance; for the Policy position they are strategic management/business policy; and for the Operations and Decision Sciences position they are management of technology and/or management information systems. Qualifications include PhD or ABD with evidence of strong research and teaching potential. The School has sixty-five full-time faculty in Business, fifteen hundred undergraduates and over two hundred and fifty part-time and full-time MBA students. Laurier's business programs focus on the development of applied general management knowledge, skills and attitudes. With a mission to achieve excellence in management education, we provide strong support for faculty to fully develop both their teaching and research capabilities. As a consequence, we are particularly interested in candidates who seek to maintain a balance between their scholarly and instructional pursuits and are committed to excellence in both. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents. The University is committed to employment equity and welcomes applications from all qualified women and men, including persons in a visible minority, persons with disabilities, and aboriginal people. All positions are subject to budget approval. Please direct applications to: Dr. Robert Ellis, Associate Dean of Business: Faculty Development & Research, School of Business & Economics, Wilfrid Laurier University, 75 University Ave. W., Waterloo, Ontario N2L 3C5.

CHEMISTRY

UNIVERSITY OF BRITISH COLUMBIA — The Department of Chemistry of The University of British Columbia is seeking to fill a tenure-track opening at the assistant professor level starting 1 July 1998. The appointment is in the area of synthetic organic chemistry. This position requires a PhD degree, postdoctoral experience preferably, and a proven research track record. The successful candidate will be expected to teach chemistry courses at the undergraduate and graduate level and to develop vigorous and creative research programs. The salary will be commensurate with experience. UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. The position is subject to final budgetary approval and, in accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Applications should consist of a curriculum vitae, list of publications, summary of research interests, a detailed research proposal, and the names and addresses of at least three references. The applicants should arrange for the complete application to be sent to: Professor Larry Weiler, Chairperson, Future Appointments Committee, The University of British Columbia, Department of Chemistry, 2036 Main Mall, Vancouver, B.C., Canada V6T 1Z1. Closing date for application is December 1, 1997.

COMMUNICATIONS

UNIVERSITY OF OTTAWA — The Department of Communication invites applications for a full-time, tenure-track position at the rank of Assistant Professor starting July 1, 1998. Established in 1969, the Department has a large, vibrant and growing program, with a broad range of courses, covering both media and interpersonal/organizational studies. Applicants should have a PhD in communication or a related discipline and a relevant research dossier. The Department anticipates that the successful candidate will contribute to the development and implementation of an M.A. program. Teaching will be mainly in English. Bilingualism is a condition for tenure. Salary according to Collective Agreement. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Ottawa is committed to an employment equity program. Candidates should submit their curriculum vitae and three letters of recommendation to: Sherry Ferguson, Acting Chairperson, Department of Communication, University of Ottawa, 554 King Edward Ave., P.O. Box 450, Stn. A, Ottawa, Ontario K1N 6N5. The deadline for application is January 15, 1998.

UNIVERSITÉ D'OTTAWA — Le Département de communication sollicite des candidatures pour un poste de professeur ou professeure adjoint·e menant à la permanence. Date d'entrée en fonction: 1er juillet 1998. Crée en 1969, le Département a un programme vigoureux et en pleine expansion. Son large éventail de cours couvre les domaines des médias et des relations interpersonelles/organisationnelles. Le candidat ou la candidate devra posséder un doctoral en communication ou dans une discipline connexe et un bon dossier de recherche et de publications. Le candidat ou la candidate choisi·e devra contribuer à la conception et à l'implantation d'un programme de maîtrise et enseigner des cours essentiellement donnés en anglais. Le bilinguisme constitue une condition d'obtention de la permanence. Salaire: selon la convention collective. Conformément aux exigences prescrites en matière d'immigration au Canada, cet avis de concours s'adresse aux citoyens canadiens et aux résidens permanents. L'Université applique une politique d'équité en matière d'emploi. Prière d'adresser sa lettre de candidature, son curriculum vitae et trois lettres de recommandation avant le 15 janvier 1998 à: Sherry Ferguson, directrice intérimaire, Département de communication, Université d'Ottawa, 554 av. King Edward, C.P. 450, Succ. A, Ottawa, Ontario K1N 6N5.

COMMUNICATION DISORDERS

DALHOUSIE UNIVERSITY — School of Human Communication Disorders. Assistant Professor. Applications are invited for a probationary tenure track position in speech-language pathology at the assistant professor level. The position requires expertise in organically based communication disorders with a focus either on neurogenic disorders or voice and resonance. Experience in the areas of alternative augmentative communication and/or dysphagia is an asset. Primary responsibilities include teaching graduate level courses, supervision of student research and the development of a program of on-going research. Qualifications include completion of the doctorate degree. Previous teaching/research experience is valuable. This is a 12 month appointment with no summer teaching duties. Salary is competitive. Starting date is August 1, 1998 but may be negotiable. Review of applications will begin December 1, 1997 and continue until the position is filled. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Dalhousie University is an employment equity/affirmative action employer. The University encourages applications from qualified women, first nations people, visible minorities and persons with disabilities. Send letters of application, curriculum vitae, and three references to: Joy Armson, PhD, Acting Director, School of Human Communication Disorders, Dalhousie University, Halifax, Nova Scotia B3H 1R2; (902) 494-7052; (902) 494-5151 (fax).

COMPARATIVE LITERATURE

UNIVERSITY OF ALBERTA — The Faculty of Arts at the University of Alberta is engaged in an extensive process of staff renewal, and is committed to ensuring that the substantial number of hirings anticipated over the next several years will secure for the future the lively and productive intellectual environment on which it prides itself. The Department of Modern Languages and Comparative Studies, University of Alberta, invites applications for a tenure-track position in the field of international popular culture/cultural theory, preferably with an additional interest in cyberspace and one other area of Comparative Literature, beginning 1 July 1998. Candidates should hold a Ph.D. in Comparative Literature and be prepared to provide evidence of scholarly and teaching excellence or potential. The appointment will be made at the rank of Assistant Professor. Entry level salary for assistant professors is currently $39,490. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered. Letters of application, CV's, including all university transcripts, and letters from three referees should be sent by December 15, 1997, to Dr. Earle Waugh, Chair, Department of Modern Languages and Comparative Studies, University of Alberta, Edmonton, Alberta, Canada, T6G 2E6. The University of Alberta is committed to the principle of equity in employment. As an employer we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

COMPUTER SCIENCE

McGILL UNIVERSITY — Computer Science Assistant Professor. The School of Computer Science at McGill University is seeking applications for a tenure-track position at the assistant professor level, to begin July 1st 1998. The applicant must have an excellent record in numerical computations and analysis, and a strong computer science background. We are particularly interested in candidates with expertise in matrix computations, and an interest in scientific applications. Candidates should have an outstanding research profile, a commitment to excellent teaching and the dedication to build an active research program. Applications, including a curriculum vitae, a list of publications, a research proposal and the names, phone numbers and e-mail addresses of three references should be sent to: Head, Search Committee, School of Computer Science, McGill University, McConnell Engineering Building, #318, 3480 University Street, Montreal, QC H3A 2A7. A duplicate of the curriculum vitae should be sent by electronic mail [ASCII preferred] to search@cs.mcgill.ca. The School's web page is www.cs.mcgill.ca. Copies of your best publications are welcome. To ensure full consideration, applications must be received by January 14, 1998, although the search will continue until the position is filled. McGill University is committed to equity in employment and in accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada.

McGILL UNIVERSITY — Computer Science. Assistant Professor. The School of Computer Science at McGill University wishes to invite applications for two tenure-track positions at the assistant professor level, to begin July 1st 1998. We are particularly interested in candidates in networks, systems and applications. Candidates should have an outstanding research profile, a commitment to excellent teaching and the dedication to build an active research program. Applications, including a curriculum vitae, a list of publications, with copies of one or two sample reprints, a research proposal and the names and e-mail addresses of three references should be sent to: Head, Search Committee, School of Computer Science, McGill University, McConnell Engineering Building, #318, 3480 University Street, Montreal, QC H3A 2A7. A duplicate of the curriculum vitae should be sent by electronic mail

LAKEHEAD UNIVERSITY

NATIVE PHILOSOPHY PROJECT

Rockefeller Foundation Humanities Fellowship Program

The Lakehead University Native Philosophy Project is an international, cross-cultural interdisciplinary research program committed to further understanding of the manner in which the world is viewed by the Aboriginal peoples of the Americas.

Rockefeller Foundation Visiting Humanities Fellows are encouraged to explore any aspect of Native Philosophy including such concepts as 'person,' 'self,' 'individual,' 'community,' 'self-government,' 'environment,' 'value,' and 'spirit,' as well as possible interrelationships between such concepts, and methodological issues arising from this unique interdisciplinary area of research. The Native Philosophy Project is particularly interested in proposals which facilitate the comparisons of accounts of world views, values etc. given by different Indigenous peoples. Although such comparisons need not be limited to the Americas, the Project encourages a North-South dialogue on Native Philosophy. Given the interdisciplinary nature of the Project, research proposals are invited from senior and emerging scholars with a humanities background in Native Studies, Native Art History, History, Language, Literature or Philosophy.

Lakehead University will host up to three Visiting Fellows each year (depending on the length of stay). The fellowship stipend is between $30,000 and $35,000 CDN for the regular academic term, and pro-rated for shorter residences.

Visiting Fellows participate, with Lakehead University faculty and other researchers, in the Project's biweekly International Indigenous Learning Seminar which includes round-table discussions, sharing of works in progress as well as formal presentations. Each Visiting Fellow has full faculty and library privileges including the opportunity to take Native languages courses (Cree or Ojibwe), and may use the services of a graduate research assistant.

Deadline for applications is **January 15, 1998** (similarly in 1999 and 2000) for residencies beginning in September of that year. For further information contact: **Dr. Connie Nelson, Dean of Graduate Studies and Research, Voice: (807) 343-8793; E-mail: connie.nelson@lakeheadu.ca; Lakehead University, Thunder Bay, Ontario P7B 5E1 Canada.**

DIRECTOR SCHOOL OF SOCIAL WORK

The Faculty of Arts, University of British Columbia, invites applications for the position of Director of the School of Social Work. The appointment, subject to budgetary approval, will begin July 1, 1998 and will be for a five-year term, renewable after review for a further five years. The Director will be tenured. The School of Social Work, the third oldest in Canada, offers accredited undergraduate (BSW) and post-graduate (MSW) programmes and participates in the interdisciplinary PhD programme. The School is committed to promoting excellence in teaching, research, and community service. Its programmes are taught by 16 tenured faculty as well as sessional appointments.

The Director is responsible for the academic standards and overall administration of the School. The School seeks from its Director creative approaches to programme delivery, the development of research with community partners, fund-raising ability and the capacity to participate in innovative and constructive ways in strategic planning in the Faculty. Candidates must hold a Doctorate and have a record of academic leadership, management and planning, demonstrated excellence in interpersonal skills, the ability to work efficiently with and to motivate faculty, staff, and students, and demonstrated effective interaction with the larger university and professional communities.

Salary will be commensurate with experience. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply.

Letters of application (or nominations) addressing the qualifications for the position, a complete resume, and names, titles, addresses and telephone numbers of four references should be sent by **January 2, 1998**, to: **Dr. Shirley Neuman, Dean of Arts, University of British Columbia, Vancouver, BC V6T 1Z1**

POSTE EN CHIMIE ANALYTIQUE

Département de chimie et biochimie

Le département de chimie et biochimie sollicite des candidatures pour un poste au niveau de professeur(e) adjoint(e) dans le domaine de la chimie analytique (inorganique, environnementale). Ce poste d'une durée limitée de 6 mois, commencera le 1er janvier 1998 avec possibilité de renouvellement pour une période de 3 ans sous réserve de l'approbation budgétaire. La candidate ou le candidat choisi(e) devra posséder un PhD et une expérience de recherche appropriée. Elle ou il devra pouvoir enseigner en français et en anglais aux niveaux sous-gradué et gradué et s'engager à établir un solide programme de recherche.

L'Université Laurentienne est située à Sudbury, le centre canadien de l'industrie minière et métallurgique. Cet avantage stratégique offre des opportunités de collaboration avec le secteur minier par l'intermédiaire du centre de recherche en exploitation minière et exploration minérale (CIMMER). La situation géographique facilite aussi la mise sur pied d'initiatives de recherche conjointes dans les domaines du traitement des minéraux, la restoration de l'environnement, et la gestion des ressources naturelles.

Conformément à la politique du bilinguisme de l'Université Laurentienne le bilinguisme passif (français/anglais) est une condition d'obtention de la permanence. L'Université offre gracieusement à ses professeurs des cours de langue seconde. L'Université Laurentienne souscrit au principe de l'équité en matière d'emploi et encourage toutes les personnes qualifiées, y compris les femmes, les eutochlones, les membres des minorités visibles et les personnes handicapées à poser leur candidatures. Conformément aux exigences de l'Immigration canadienne, cette annonce s'adresse aux citoyens et citoyennes canadiens ainsi qu'aux résidents et résidentes permanents.

Les candidates et candidats doivent faire parvenir un curriculum vitae, une liste de publications, un résumé des intérêt de recherche, la description d'un projet de recherche spécifiant les besoins d'équipement et trois lettres de recommandation adressées à: **Dr. Werner Rank, Département de chimie et biochimie, Université Laurentienne Sudbury, ON P3E 2C6; Télécopieur: (705) 675-4844; http://www.laurentian.ca**

La date limite pour soumettre les dossiers est le **20 novembre 1997.**

Université Laurentienne

ANNONCES CLASSÉES

(ASCII preferred) to search@cs.mcgill.ca. The School's web page is www.cs.mcgill.ca. The review process will start November 1st, 1997, but applications received until January 31, 1998 are assured full consideration and the search will continue until the positions are filled. McGill University is committed to equity in employment and in accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada.

UNIVERSITY OF TORONTO — Department of Computer Science invites applications for two tenure track positions as an Assistant Professor in Communications Networks and Distributed Information Systems or in Software Engineering. Salary will be determined according to the successful applicant's experience and qualifications. The appointment is to commence July 1st, 1998 and the position is on the St. George (downtown) campus of the University of Toronto. Applications, including a curriculum vitae and a list of publications, should be sent to: Professor Wayne H. Enright, Chairman, Department of Computer Science, University of Toronto, Toronto, Ontario, M5S 1A4, Canada. Please arrange to have three letters of references sent directly to the same address. Deadline for application is January 15th, 1998. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples, and persons with disabilities. Qualified Canadians and non-Canadians are encouraged to apply.

UNIVERSITY OF TORONTO — Limited Term Faculty Positions and Research Associates. The Department of Computer Science, University of Toronto invites applications for a number of positions. Subject to budgetary approval, one or more Limited Term Faculty positions are available for the 1998-99 academic year. Applicants must be able to teach a range of Computer Science courses. In addition, a number of research associate positions may be available in a variety of research areas. Applications, including a curriculum vitae and a list of publications, should be sent to: Professor Wayne H. Enright, Chairman, Department of Computer Science, University of Toronto, Toronto, Ontario, M5S 3G4, Canada. Please arrange to have three letters of reference sent directly to the same address. Deadline for application is January 31, 1998. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples, and persons with disabilities.

UNIVERSITY OF TORONTO — Postdoctoral Fellowships. The Department of Computer Science, University of Toronto, has received funding from various granting agencies. Funding permitting, Postdoctoral Fellowships are available in all areas of Computer Science. Please see our web page at http://www.cs.toronto.edu for a list of faculty and research areas. Applications, including a curriculum vitae and a list of publications, should be sent to: Professor Wayne H. Enright, Chairman, Department of Computer Science, University of Toronto, Toronto, Ontario, M5S 1A4, Canada. Please arrange to have three letters of reference sent directly to the same address. Deadline for application is January 31st, 1998.

YORK UNIVERSITY — Faculty of Pure and Applied Science, Department of Computer Science. The Department of Computer Science is actively pursuing a policy of expanding its faculty base. Applications are invited for up to four tenure-track and/or contractually-limited term positions at the assistant professor level. Appointments could be made as early as January 1, 1998 but the majority of the positions are expected to be filled by July 1, 1998. One of the positions is targeted towards software engineering, and the Department plans to increase its overall strengths and has particular interest in attracting faculty in the following areas: software systems, including compilers, programming languages, parallel systems, distributed systems, concurrent systems, networks, and other closely-related areas; artificial intelligence, vision, graphics and robotics; and parallel algorithms and architectures. Excellent candidates from other applied areas are also encouraged to apply. A recent doctoral degree in computer science is required. Applicants must demonstrate strong potential for excellence in research and teaching at both the graduate and undergraduate levels. The Department of Computer Science at York includes more than 25 faculty members and has recently moved to expanded facilities in the new Chemistry and Computer Science Building. They offer a full range of graduate and undergraduate programs, including a PhD. York University is Canada's third largest university. It is located in Metropolitan Toronto and is within easy reach of downtown Toronto. For more information about the department, see http://www.cs.yorku.ca/. Applications, with CV and the names of four references should be sent to: Michael Jenkin, Search Committee Chair, Department of Computer Science, 126 CCB, Faculty of Pure and Applied Science, York University, North York, Ontario, Canada M3J 1P3 Applications should be received by January 15, 1998 for appointments to be made for July 1, 1998. Applications received after January 15, 1998 may also be considered if positions are still available. York University is implementing a policy of employment equity, including affirmative action for women faculty members. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada.

UNIVERSITY OF WATERLOO — Department of Computer Science. The University of Waterloo invites applications for several tenure-track faculty positions in Computer Science. The Department prides itself on being a leader in Computer Science education and home to a diverse research program of international stature. Because of its recognized strengths and breadth, the Department is able to attract extremely well qualified students at both undergraduate and graduate levels; these students contribute extensively to the Department's vitality. Priority will be given to candidates with extensive experience in designing, implementing, and evaluating practical software systems, and especially those with expertise in distributed systems, network computing, programming languages, software engineering, or database systems. Other successful candidates may have teaching and research expertise in those fields more broadly or in artificial intelligence, computer graphics, data structures design, or design tools and methods. Successful applicants will be expected to develop and maintain a productive research program, to attract and develop highly valued graduate students, to provide a stimulating learning environment for undergraduate and graduate students, and to contribute to the administration of the Department. A PhD in Computer Science or equivalent is required, with evidence of excellence in teaching and research. Candidates at all levels of experience are encouraged to apply. Rank and salary will be commensurate with experience. With over 40 full-time faculty members, the Department of Computer Science is the largest in Canada. Waterloo pioneered the cooperative education system in Canada and now has the largest co-op program in North America. The Department has an excellent reputation in pure and applied research. For further information about the Department, please see http://math.uwaterloo.ca/CS_Dept/. Applications should include a curriculum vitae and the names and e-mail addresses of three references. The application should be directed to the Chair: Professor Nick Cercone, Department of Computer Science, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1; cs-chair@cs.uwaterloo.ca. To expedite handling of applications, candidates should ask those named as references to direct supporting letters to the same address. The positions are expected to commence during the 1998 calendar year. The Department will begin to consider applications in December 1997; applications will be considered as soon as they are complete and until April 1998 as long as positions remain available. The University of Waterloo encourages applications from all qualified individuals including women, members of visible minorities, native peoples, and persons with disabilities. Qualified Canadians and non-Canadians are encouraged to apply. These appointments are subject to the availability of funds.

UNIVERSITY OF WATERLOO — The Department of Computer Science. University of Waterloo, invites applications for several part-time sessional and also full-time definite-term positions in support of its teaching commitments to some of the best undergraduate computing students in the world. Though the courses to be covered span the curriculum and all year levels, the requirement in applied areas is particularly acute. Full-time positions may also include administrative support functions and/or research contributions. The contractual length of these positions can range from a single term to as long as two years. A PhD in Computer Science is desirable but candidates with a Masters degree in Computer Science are also invited to apply. Rank and salary will be commensurate with experience and the terms of the contract. The Department of Computer Science comprises over 40 full-time faculty members. Excellent offices, laboratories, and computing facilities, in addition to attentive support staff, provide for a productive work environment. Please see http://math.uwaterloo.ca/CS_Dept/ especially the section labelled Computer Science Undergraduate Handbook, for further information about the Department and the courses it teaches. Applications should include a resumé/curriculum vitae and the names and postal or e-mail addresses of three references. The supporting letter should indicate the applicant's range of teaching interests in computer science expressed in terms of Waterloo course numbers if possible. The application should be directed to the Chair: Nick Cercone, Department of Computer Science, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1; cs-chair@cs.uwaterloo.ca. Candidates should ask those named as references to direct supporting letters to the same address. The positions are expected to commence at early as January, 1998 but are flexible and can begin at the start of any school term. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents with respect to a definite term appointment; qualified Canadians and non-Canadians holding positions at other institutions may apply as visiting faculty. The University of Waterloo encourages applications from all qualified individuals including women and members of visible minorities, native peoples, and persons with disabilities. These appointments are subject to the availability of funds.

COMPUTING

WILFRID LAURIER UNIVERSITY — The Department of Physics and Computing of Wilfrid Laurier University invites applicants for faculty positions in Computing, both tenure-track and limited term (subject to budgetary approval). One appointment is expected to be made at a level higher than Assistant Professor. The successful candidates will teach at the undergraduate level, pursue active research programs, and contribute to the administration of the Department. The Department offers degrees which emphasize computer hardware and/or software. More information about the Department and the University may be found at http://www.wlu.ca. Candidates must have a PhD in Computing Science, Computer Engineering or equivalent. The University is committed to employment equity policies, and welcomes applications from all qualified women and men, including members of visible minorities, Aboriginal peoples and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents. Applicants, complete with a curriculum vitae and the names and contact details of three references, should be sent to: Dr. John Lit, Chair, Department of Physics and Computing, Wilfrid Laurier University, 75 University Avenue West, Waterloo, Ontario N2L 3C5 The final application deadline is January 31, 1998, and appointments will be made for July 1, 1998. However, applications may be considered as soon as they are complete, and an appointment may be made for January 1, 1998.

CURRICULUM STUDIES

THE UNIVERSITY OF BRITISH COLUMBIA — The Department of Curriculum Studies at the University of British Columbia invites applications for a full-time, tenure-track position in business education at the assistant professor level. The appointment will become effective no earlier than July 1, 1998, subject to final budgetary approval. Candidates must have a doctoral degree, relevant school teaching experience in business education or related areas, and a record of research and publication. Areas of particular interest to the Department include the implications of technological change for business education, and critical analysis of the social and technical relations of work and the workplace. Responsibilities will include teaching courses at the undergraduate and graduate levels, supervising graduate students and student teachers, and maintaining an active program of research and publication. Salary will depend upon the successful candidate's qualifications and experience. Programs and courses within the Department of Curriculum Studies cover all of the school curriculum areas with the exception of languages, and department members and students work in a collaborative, multi-disciplinary environment. The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Appointment at a senior rank may be considered for a woman with exceptional qualifications. The closing date for applications is December 31, 1997. A letter of application, a curriculum vitae, the names, addresses, and phone/fax numbers of three referees, a statement of research interests, and one published paper (if available) should be sent to: Dr. David Robitaille, Head, Department of Curriculum Studies, Faculty of Education, The University of British Columbia, 2125 Main Mall, Vancouver, B.C. V6T 1Z4.

EARTH & OCEAN SCIENCES

UNIVERSITY OF BRITISH COLUMBIA — Earth and Ocean Sciences. Applications are invited for a tenure-track position in mineral deposits geology at the assistant professor level beginning in July 1998. Duties include teaching at the undergraduate and graduate levels and the establishment of a strong research program. Candidates should have a PhD with a specialization in some aspect of mineral deposit geology (e.g. chemistry of ore fluids, fluid inclusions, isotope geology, exploration technology, applied geochemistry). We are especially interested in candidates planning to develop a research program that involves a significant component of field-based studies. Registration or eligibility to register as a Professional Engineer in the province of British Columbia would be an asset. Vancouver is an important centre both for the mining industry of British Columbia and for global mineral exploration. A key link with this community is the Mineral Deposit Research Unit (MDRU), a joint industry-university undertaking based in the department. We seek an individual who can develop a strong research program that is partly in cooperation with other colleagues and with MDRU and affiliated companies. UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian immigration policy, this advertisement is directed to Canadian citizens and permanent residents. This position is subject to final budgetary approval. Applications including a resume, a statement of research and teaching interests, and the names of three referees should be sent to: Dr. R.A. Ellis, Head, Department of Earth and Ocean Sciences, University of British Columbia, 6339 Stores Road, Vancouver, B.C., Canada V6T 1Z4, by January 30, 1998

EARTH SCIENCES

SIMON FRASER UNIVERSITY — The Earth Sciences Program is seeking to fill a tenure-track position at the Assistant Professor level in the area of near-surface (applied) geophysics. The ideal candidate is a geophysicist with an established research program in the application of seismic reflection, electrical methods, three-dimensional imaging, ground penetrating radar, or electro-magnetic techniques to problems in the shallow subsurface, preferably with relevance to environmental geoscience issues. The successful candidate must have a commitment to both undergraduate and graduate education as well as to developing a funded research program. For detailed information about this position refer to the Program's home page: www.sfu.ca/earth-sciences. A PhD is required at the time of appointment and the successful candidate will be eligible, preferably, for professional registration in BC (APEGBC). The appointment will commence in September 1998. In accordance with Canadian immigration this advertisement is directed to Canadian citizens and Permanent Residents. Simon Fraser University is committed to the principles of equity in employment and offers equal employment opportunities to qualified applicants. This position is subject to final budgetary approval. Applicants should send a curriculum vitae, a letter describing current and near-term research interests and copies of appropriate reprints; an e-mail address, a fax number and names of at least three referees by January 15t, 1998 to: Dr. Michael C. Roberts, Director, Earth Sciences Program, Simon Fraser University, Burnaby, BC, Canada, V5A 1S6. Phone (604) 291-4657; Fax (604) 291-4198; mroberts@sfu.ca.

THE UNIVERSITY OF WESTERN ONTARIO — The Department of Earth Sciences. The University of Western Ontario, invites applications for a tenure track appointment (effective July 1, 1998) at the Assistant Professor level for a paleontologist who has specialized in one or more of the major phyla of the invertebrate fossil record. Applicants should have a sound basic training in all major groups of invertebrate fossils and in evolutionary principles. In addition, they should be able to demonstrate that, in their training and research, they have applied their paleontological knowledge to one or more key aspects of stratigraphical interpretation, such as biostratigraphy, event stratigraphy, or paleoenvironmental reconstruction. The successful candidate is expected to teach paleontology to undergraduate and graduate students, and to contribute to teaching of programs in environmental earth science. For the latter, a familiarity with ancient biodiversity and sedimentary environments, fossil-sediment interactions, and community structure would be advantageous. The successful candidate is expected to pursue a vigorous research program in paleontology and to collaborate with other faculty members who have related research interests. The Department of Earth Sciences has eighteen faculty members, more than forty-five graduate students, and offers undergraduate and graduate programs in Geology, Geophysics, and Environmental Earth Sciences. A wide array of modern research facilities are available within the Department and the University. Applicants, who should hold the PhD degree, or equivalent, from a recognized university, should write to Professor Fred I. Longstaffe, Chair, Department of Earth Sciences, The University of Western Ontario, London, Ontario, Canada N6A 5B7 by January 30, 1998. In addition to letters of application, they should include their full curriculum vitae, with the names, addresses and telephone/fax numbers of at least three appropriate external referees whom the Department may contact, and a statement, not to exceed 500 words, explaining how their background and research interests qualify them for this position. Positions are subject to budget approval. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian Citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

EDUCATION

UNIVERSITY OF BRITISH COLUMBIA — Faculty of Education. The Department of Educational Studies at the University of British Columbia, invites applications for a full-time, tenure track academic appointment in Educational Administration and Leadership at the Assistant Professor level. The appointment will become effective July 1, 1998, and will be subject to final budgetary approval. The Faculty offers programs leading to PhD, Ed.D., M.A., and M.Ed. degrees, the Diploma in Education, and the B.Ed. degree with teacher certification. The Department of Educational Studies houses a range of programs and educational disciplines. It has 400 students enrolled in its doctoral and magistral programs and serves approximately 500 students enrolled in the Faculty's teacher education programs. All faculty are asked to assume some instructional responsibilities in post-baccalaureate or diploma programs. We seek applicants with research and teaching interests in Educational Administration and Leadership whose work will complement existing expertise and perspectives in the department. The successful candidate will be expected to contribute to the department's strong links with professional and scholarly associations in the field of Educational Administration in B.C. and beyond. He or she will have an earned doctoral degree and experience in educational leadership. Candidates are asked to provide evidence of research competence and preferably some post-secondary teaching experience. The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. An appointment may be considered at a higher rank for a person with exceptional qualifications. Final date for applications: January 15, 1998. Letters of application, curriculum vitae, the names, addresses and phone and fax numbers of three referees, together with a statement of research interests should be sent to: Dr. Patricia Vecinsky, Professor and Head, Depart-

NEW FACULTY POSITIONS

Industrial Engineering, Secondary Wood Processing, and Wood Finishes and Coatings

Department of Wood Science
University of British Columbia

The Faculty of Forestry at UBC has established a new Wood Products Processing degree program and a new national Centre for Advanced Wood Processing (CAWP) to prepare graduates for careers in Canada's primary and secondary wood products industries. The CAWP maintains an advanced wood products processing laboratory to support education programs and deliver continuing education, extension and applied R&D fo the secondary wood products industry. Three new appointments are available at the rank of Assistant or Associate Professor or Instructor.

Industrial Engineering

The appointee for the Industrial Engineering position will deliver undergraduate courses including: Industrial Engineering, Job Costing & Engineering Economics and Machine & Plant Optimization and implement an applied research and extension program relevant to the secondary wood products manufacturing industry.

The successful candidate will be an expert in secondary wood products manufacturing. Knowledge of manufacturing technology, work study methods and operations research is required. The successful applicant will also have experience with plant layout and design and production scheduling. Experience with cost accounting, finance, and quality control methods used in wood products manufacture would be an asset. A minimum of two years' industrial experience is preferred.

Wood Finishes and Coatings

The appointee for Wood Finishes and Coating position will deliver undergraduate courses including: Wood Finishing, Wood Adhesives & Coatings, and Environmental & Facilities Design and implement an applied research and extension program relevant to the secondary wood products manufacturing industry.

The successful applicant will be an expert in the modern wood finishing technology and have a practical knowledge of the formulation of wood finishes and experience with environmental controls associated with finishes and coatings. Experience with the faminates/overlays and colour technology used in wood products manufacture would be an asset. Other expertise thet would contribute to the background of the successful applicant includes quality control, polymer chemistry and plant layout. A minimum of two years' industrial experience is preferred.

Secondary Wood Manufacturing

The appointee in Secondary Wood Products Manufacturing will deliver undergraduate courses including: Secondary Wood Products Manufacturing, Advanced Wood Products Manufacturing, and Furniture Construction. The appointee must develop an applied research and extension program relevant to the needs of the secondary wood products manufacturing industry.

The successful applicant will have expertise in secondary wood products manufacturing technology and furniture construction. Experience in production scheduling, cost accounting and finance related to the wood industry woufd be an asset. A minimum of two years' industrial experience is preferred.

Appointments

Applicants with state-of-the-art experience in industrial engineering or secondary wood products manufacturing or finishing & coating are encouraged to apply for a part- or full-time Instructor position (Doctorate not required). Applicants with a Doctorate and industrial experience will be given preference for an Assistant or Associate Professor appointment. Opportunities exist for joint appointments with the CAWP.

Salary will be commensurate with qualifications. UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Program information is available on our web sites: www.wood.ubc.ca and www.cawp.ubc.ca.

Applications containing a Curriculum Vitae and the names of at least three references should be mailed or faxed before **December 30, 1997** to:

Dr. J. David Berrett
Head, Department of Wood Science
385-2357 Main Mall
Vancouver, B.C. CANADA V6T 1Z4
Fax: (604) 822-9104

ASSISTANT PROFESSOR
SING TAO SCHOOL OF JOURNALISM

The new Sing Tao School of Journalism at the University of British Columbia invites applications for a full-time, tenure-track academic appointment at the level of Assistant Professor. The appointment will become effective July 1, 1998 and will be subject to final budget approval. Salary will be commensurate with qualifications and experience.

The School offers a graduate programme combining journalistic and academic studies leading to an M.J. All applicants should have, as a minimum, a Master's degree and preferably, a PhD in an appropriate area, teaching credentials or appropriate experience in a school setting and a strong research capability.

Duties will include teaching and supervision of graduate students in media theory and studies, as well as journalistic practices and standards. Letters of application, curriculum vitae, names, addresses and fax numbers of three references, together with a statement of research interests and copies of recently published articles should be sent to:

Donna Logan, Director
Sing Tao School of Journalism
The University of British Columbia
6388 Crescent Road
Vancouver, BC V6T 1Z2

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of British Columbia hires on the basis of merit and is committed to employment equity. All qualified persons are encouraged to apply. The closing date for application is **December 1, 1997**

ment of Educational Studies, Faculty of Education, 2125 Main Mall - UBC Campus, Vancouver, B.C. Canada V6T 1Z4. Telephone: (604) 822-8994, Fax: (604) 822-4244; e-mail: vertrek@unixg.ubc.ca.

ENDOCRINOLOGY

MCGILL UNIVERSITY — The Department of Medicine of McGill University and the Royal Victoria Hospital is seeking an Assistant Professor, non-tenure track, for the Laboratory of Molecular Endocrinology starting as soon as possible. The candidate will be a highly motivated, innovative scientist with a strong background in the areas of signal transduction and control of gene expression, preferably in the context of endocrinology. The successful candidate will establish his/her independent research program and be responsible for obtaining external research funding. Start-up support is available. Salary will be commensurate with experience in keeping with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. McGill University is committed to equity in employment. Please submit a CV, list of publications, outline of current research interests and names, addresses and telephone numbers of three references within 45 days to: Dr. Hans Zingg, Director, Lab of Molecular Endocrinology, Royal Victoria Hospital, 687 Pine Avenue West, Montreal, Quebec, H3A 1A1.

ENGINEERING

UNIVERSITY OF ALBERTA — Department of Electrical and Computer Engineering invites applications for two tenure-track faculty positions in the Computer Engineering area to start July 1, 1998. Senior applicants will be considered for the position of Director of Computer Engineering. Salary and rank will be commensurate with qualifications and experience. Successful applicants will be qualified to teach undergraduate and graduate courses in their area of specialty and in the core curriculum. As well, the applicants will be expected to supervise both M.Sc. and PhD graduate students and to demonstrate leadership in the development of research programs. Applicants for Director will in addition be expected to demonstrate organizational and leadership skills in the further promotion and development of an established computer engineering program. Applications are invited in all areas of computer engineering, and are especially encouraged in the area of Software Engineering. Other specializations or interest include object-oriented design, software/hardware co-design and synthesis, rapid prototyping, multimedia engineering, VLSI design and test, CAD tools, computers and communications, real-time systems, distributed systems and computer architecture. Applicants must have a doctorate degree (or pending) and a strong commitment to teaching and research. Industrial experience will be considered an asset. The Department of Electrical and Computer Engineering currently has 32 full-time academic staff. Opportunities exist for collaborative research with other Engineering Departments, the Department of Computing Science and local research institutes including the Alberta Microelectronic Centre and Telecommunications Research Laboratories. Additional information on the Department can be found on its web page http://www/ee/ualberta.ca To apply, send a curriculum vitae including employment history, a statement concerning research and teaching interests, reprints of at least two representative research papers and the names of at least three references to: Dr. C.E Capjack, Chair, Department of Electrical and Computer Engineering, The University of Alberta, Edmonton, Alberta, Canada, T6G 2G7. Applications will be evaluated starting January 9, 1998, but will continue to be accepted until the positions are filled. The University of Alberta is committed to the principle of equity in employment. As an employer we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities and members of visible minorities.

CONCORDIA UNIVERSITY — The Department of Mechanical Engineering is seeking applications for a full-time tenure track faculty position at the Assistant or Associate Professor level in the area of Materials, particularly Metals, Characterization, Processing, Manufacturing, starting January 1998. The Department offers B. Eng., M. Eng., M.A.Sc., and PhD programs and has a well established and well-funded faculty research activity. The Department also has three strong research centers with focus on Industrial Control, Vehicle Engineering and Composites and a strong research laboratory on Computational Fluid Dynamics. Candidates should have a Bachelor's and a PhD degree in Mechanical Engineering. The qualified candidate should have a proven record of excellence in teaching and research. The incumbent should demonstrate capabilities in teaching courses in all or a good combination of the following: Materials Science, Properties and Failure of Materials, Mechanical Shaping of Metals, Plastic and Composites, Casting, Welding, Heat Treating and Nondestructive Testing and Materials for Aerospace applications. The candidate should be able to conduct independent scholarly research and attract external funding. Eligibility for certification as a Professional Engineer in Quebec or in another Canadian province is essential. Knowledge of French would be an asset. Applications including detailed curriculum vitae and names of at least three referees, should be sent to Dr. S.V. Hoa, Chair, Department of Mechanical Engineering, Concordia University, 1455 de Maisonneuve Blvd. West, #H-549, Montreal, Quebec Canada, H3G 1M8, or by e-mail at mecheng@vax2.concordia.ca. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Concordia University is committed to employment equity and encourages applications from women, aboriginal peoples, visible minorities, and disabled persons. All things being equal, women candidates shall be given priority.

UNIVERSITY OF ALBERTA — Department of Chemical and Material's Engineering. Applications are invited for a tenure-track faculty position. The salary and rank of the appointment will be commensurate with qualifications and experience. Candidates must either hold a PhD in Metallurgical Engineering or related field, or expect to receive one before July 1, 1998. Our primary needs are in mineral processing and process metallurgy, but we are interested in high-quality candidates in any area of metallurgical engineering. Experience in process design would be an asset. The successful candidate will be expected to establish a viable and productive research program, and to teach both undergraduate and graduate courses. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered. A resume, the names of three references, and a statement of current research interests and plans for future research should be sent to: Dr. S.E. Wanke, Chair, Department of Chemical and Materials Engineering, University of Alberta, Edmonton, Alberta, Canada T6G 2G6. Applications are requested prior to February 15, 1998. Information about our Department can be found on our web site http://www.ualberta.ca/ca/CHEMENG/. The University of Alberta is committed to the principle of equity in employment. As an employer, we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

UNIVERSITY OF MANITOBA — The Department of Mechanical and Industrial Engineering at the University of Manitoba is accepting applications for two full-time, tenure-track faculty positions in the areas of: 1) Mechanical Engineering Design and Manufacturing, with a specialization emphasizing computer applications in areas such as: the Design Process, Concurrent Engineering, Machine Design, Manufacturing, Computer Integrated Manufacturing, and Computer-aided Design. The appointment is expected to be at the level of Associate Professor with a starting salary in the range of $56,000 to $68,000. 2) Solid Mechanics with specialization emphasizing computer applications in the following sub-areas: Computer-aided engineering design, finite element method, computational mechanics, and stress analysis, with an interest in aerospace structures. The appointment will be at the rank of Assistant Professor with a starting salary up to $56,000. Candidates for both positions must have a PhD degree in a field related to the required areas of specialization and be eligible for registration with the Association of Professional Engineers of Manitoba. The duties of successful candidates will include undergraduate and graduate teaching, supervision of graduate students and the development of an active, externally funded research program. The successful candidate for the Design and Manufacturing position will be an established person in a field related to the required area of specialization. His/Her duties will include strengthening the existing design program in the department. Ability to interact with industries is an asset. The Department of Mechanical and Industrial Engineering is responsible for two fully-accredited undergraduate programs (Mechanical Engineering and Industrial Engineering) and an option in Aerospace Engineering. The department is very active in graduate teaching and research at the M.Eng., M.Sc. and PhD levels. Currently, there is one NSERC Industrial Chair established in the area of Aerospace Materials. The focus of the Department is in the area of advanced manufacturing. The successful candidates will be expected to fit in to this advanced manufacturing theme of the department. The Department comprises 22 academic staff, 12 support staff, several post-doctoral fellows, research associates and visiting scholars, as well as approximately 100 graduate students and 350 undergraduate students. Winnipeg is a mature city with rich recreational and cultural opportunities. It combines the amenities of urban life with easy access to the countryside and to northern lakes and forests. Housing prices are low by North American standards. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal peoples, and persons with disabilities. Priority consideration will be given to Canadian Citizens and Permanent Residents. Applicants should send a resume, the names and addresses of at least three references and a one-page statement of research and teaching goals. Please submit all materials to Professor A.S. Alfa, Chair of the Search Committee, Department of Mechanical and Industrial Engineering, University of Manitoba, Winnipeg, Manitoba, Canada R3T 5V6; Phone (204) 474-9803 (or 474-6631). Fax (204) 275-7507. All email enquiries should be sent to <eyas@bldgeng.lan1.umanitoba.ca> to the attention of A.S. Alfa. Applications will be accepted until November 30, 1997.

THE UNIVERSITY OF MANITOBA — Department of Electrical and Computer Engineering invites applications for a tenure-track position at the assistant professor level. The successful candidate will hold the PhD degree or equivalent, and be enthusiastic about teaching any of the basic undergraduate areas of electrical and computer engineering. The applicant will have expertise in the design and implementation of devices and systems in one of the following areas: RF circuits and systems; simulation and design of microwave active and passive devices; microwave integrated circuits and antenna design; high speed devices, modelling and design; wireless systems, modelling and simulation; or related emerging technologies. The applicant is expected to collaborate with the Applied Electromagnetics Research Group. The group has expertise in wireless systems including high speed devices and antennas and is actively involved with local and international research organizations and manufacturers. The group currently has 5 professors, 5 adjunct professors, and 35 graduate students and postdoctoral fellows. The Applied Electromagnetics Laboratory is a state-of-the-art facility with near-field and compact range anechoic chambers, automated test equipment, and an outdoor antenna test range. Associated laboratories include integrated circuit design, fabrication and diagnostic facilities. Applications from qualified women and men, including members of visible minorities, Aboriginal peoples, and persons with disabilities are welcome. The University of Manitoba particularly encourages applications from qualified women. Priority consideration will be given to Canadian citizens and permanent residents. Minimum high or eligibility for membership in a Canadian professional engineering association is a requirement. Applications, including curriculum vitae and the names of three referees, should be sent to Dr. R.W. Menzies, Head, Department of Electrical and Computer Engineering, The University of Manitoba, Winnipeg, Manitoba, Canada, R3T 5V6. Telephone: (204) 474-9099; Fax: (204) 261-4639. email: menzies@ee.umanitoba.ca, website: http://www.ccumanitoba.ca. Deadline for receipt of applications is December 1, 1997.

UNIVERSITY OF TORONTO —The Department of Electrical and Computer Engineering invites applications for a tenure-stream Assistant Professor position in the areas of: 1. Systems Software and Software Systems. There is particular interest in applicants who have been involved in the design, implementation, and prediction of the behaviour of complex software systems, such as communications networks, compilers, distributed, parallel, operating, embedded or real-time systems. 2. Microelectronics, with IC design experience in low power digital electronics, high-speed data communications, or high-frequency circuits. Additional information on the hiring priorities of the Department can be found on the Web pages at: http://www.ece.toronto.edu. The positions involve both research and teaching at the undergraduate and graduate levels. Applicants must have a doctoral degree, an outstanding academic record and effective teaching ability. Applicants should send a curriculum vitae, a statement concerning teaching and research interests, and a list of three references by January 30, 1998 to: Professor Safwat G. Zaky, Chair, Department of Electrical and Computer Engineering, University of Toronto, 10 King's College Road, Toronto, Ontario M5S 3G4 Canada. The appointments will be made as soon as possible after the closure date. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Toronto is committed to employment equity and encourages applications from women, visible minorities, aboriginal people and physically challenged persons.

UNIVERSITY OF TORONTO — Nortel Institute and the Department of Electrical and Com-

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Department of French, Italian and Spanish

The University of Calgary

The Department of French, Italian and Spanish of The University of Calgary invites applications for a tenure-track, rank-open appointment in Spanish beginning July 1, 1998. We are seeking candidates with specialization in the area of Latin American literature and culture. Applicants should possess leadership qualities and the flexibility to contribute to a small but comprehensive Spanish Section through participation in a wide range of its undergraduate and graduate activities. The University of Calgary also has an active Latin American Studies Programme historically focused on Mexico.

All candidates should possess a PhD or the equivalent, an active research record, familiarity with current literary theory and cultural studies, broad experience in teaching Spanish as a second language, and native or near-native competence in Spanish.

Applicants should send an application and curriculum vitae, and should arrange for three confidential letters of reference to be sent by November 28, 1997, to:

Professor D. C. Walker, Head
Department of French, Italian and Spanish
The University of Calgary
2500 University Drive NW
Calgary, Alberta, Canada
T2N 1N4

Previous applicants are invited to update their dossiers if they wish to be considered in this competition.
The University of Calgary is committed to employment equity

THE UNIVERSITY OF CALGARY

www.ucalgary.ca

McGill

Assistant Professor School of Social Work

The McGill School of Social Work invites applications for an Assistant Professor, tenure-track position in Social Work, to teach direct practice and research, especially related to health through the life cycle, gerontology, disability, and cross-cultural practise.

The School has undergraduate (BSW) and graduate (MSW) programs, as well as a bilingual PhD program in conjunction with Université de Montréal. The curriculum embraces practice, administration and policy in a wide range of specialties. The multicultural, multi-racial character of the School's milieu is emphasized throughout. Located within the School is the Centre for Applied Family Studies, an endowed research centre.

Candidates should have experience teaching, publications, and a PhD in Social Work or a Social Work degree and a doctorate in a related field. Facility in French is a definite asset.

Direct inquiries to:
Dr. William Rowe, Director
McGill University
School of Social Work
3506 University Street
Montreal, Quebec H3A 2A7
Canada

The review process will begin **November 15, 1997**. Appointment may be considered as early as January 1998, pending budgetary approval.

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. McGill University is committed to equity in employment

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University of Alberta
Edmonton

Dean

Faculty of Graduate Studies and Research

The University of Alberta invites applications and nominations for the position of Dean of the Faculty of Graduate Studies and Research. The Faculty administers 62 Master's and 53 Doctoral programs distributed across 62 academic units. Current graduate student enrollment is approximately 4,250. The Dean is the chief executive of the Faculty and Chairs the Faculty Council which recommends and reviews policy for the Faculty and its component units. In addition, the Dean oversees the Faculty office which provides extensive student services and monitors all aspects of graduate programs. As a senior member of University administration the Dean represents the Faculty across the University and to the outside community. The Dean reports to the Vice-President (Academic) and is responsible for leadership of the Faculty. A position description is available on request.

Candidates should have a demonstrated capacity for leadership, strong academic qualities, and proven administrative ability. The appointment will take effect July 1, 1998 or as soon as possible thereafter.

Written nominations for the position, or applications supported by a curriculum vitae and the names of three referees, should be submitted by 15 January, 1998 to:

Dr. Doug Owram
Vice President (Academic)
Third Floor, University Hall
University of Alberta
Edmonton, Alberta, Canada
T6G 2J9

The University of Alberta is committed to the principle of equity in employment. As an employer we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

...it makes *sense.*

THE UNIVERSITY OF BRITISH COLUMBIA

Requires a Dynamic Leader for its Part-time Degree Credit Program

The University of British Columbia (UBC) registers 33,000 undergraduate and graduate students yearly; the part-time programs feature 26,802 course registrations (or 2,680 full-time-enrollment students) in a combination of winter and spring evening study, summer daytime study and a variety of Directed Study Abroad programs. The spectacular 402 hectare campus is strategically located on the Pacific Rim.

UBC Continuing Studies requires a dynamic leader for its Part-time Degree Credit program. This division serves the needs of Canadian and international leaders and plays a vital role in Continuing Studies' strategic plan. The new Director will continue to oversee highly successful programs; investigate new initiatives which expand the scope of credit offerings; and will work directly with UBC faculties, the Continuing Studies Distance Education and Technology Division and Pacific Rim clients to expand possibilities for new credit programs.

This position calls for a visionary, someone with proven managerial skills, a Ph.D., relevant university continuing education experience, able to work within a diversified racial, ethnic, cultural and international setting. Competency in languages other than English would be an asset. The Director reports to the Associate Vice-President, Continuing Studies and is a member of the Management Committee of Continuing Studies.

Salary will be commensurate with experience.
The position is open immediately.
The Application deadline is *November 30, 1997.*

Contact Dr. Walter Uegama
Associate Vice-President Continuing Studies
The University of British Columbia
2329 West Mall, Room 1170
Vancouver, BC, V6T 1Z4.
Telephone: (604) 822-0882; Fax: (604) 822-0822.

UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada.

puter Engineering. The recently announced Nortel Institute for Telecommunrrtations has been established by Nortel (Northern Telecom) at the University of Toronto, with the aim of furthering research and education in the communications field. As part of this exciting initiative, the Department of Electrical and Computer Engineering invites applications for tenure-stream Assistant Professor positions in the areas of: 1. Communications Networks, including network architecture, internet working multimedia networking, wireless networking, active networks and agent technology, network security, network management and new services. 2 Emerging Technology. Future directions and alternatives in hardware technologies, primarily focussed on electronic technologies, such as polymer electronics, nanotechnology and photonics. These positions are supported by and are expected to involve significant research interaction with Nortel. Additional research support may be available from the Natural Sciences and Engineering Research Council of Canada (NSERC) and Federal and Provincial Centres of Excellence. Salary is commensurate with qualifications and experience. Additional information on the facilities of the Department can be found on the Web pages at: http://www.ece.toronto.edu. These positions involve both research and teaching at the undergraduate and graduate levels. Applicants must have a doctoral degree, an outstanding academic record and effective teaching ability. Applicants should send a curriculum vitae, a statement concerning teaching and research interests, and a list of three references by January 30, 1998 to: Professor Safwat G. Zaky, Chair, Department of Electrical and Computer Engineering, University of Toronto, 10 King's College Road, Toronto, Ontario M5S 3G4 Canada. The appointments will be made as soon as possible after the closure date. In accordance with Canadian immigration requirements, priority will begiven to Canadian citizens and permanent residents of Canada. The University of Toronto is committed to employment equity and encourages applications from women, visible minorities, aboriginal people and physically challenged persons.

THE UNIVERSITY OF WATERLOO — The Department of Electrical & Computer Engineering at the University of Waterloo is seeking an outstanding candidate for a tenure track faculty position, at the level of assistant professor, in the general area of thin film devices, circuits, and systems pertunent to high speed imaging. This position is in conjunction with our recently established OAIS/AITRGN/SERC Industrial Research Chair in Sensor Technology. The advertised position is for a faculty member who is expected to carry out research that is independent but complementary to the Chair program. The successful candidate is expected to have a strong commitment to teaching and research, including supervision of graduate students. The candidate for the position must have an earned doctoral degree with a strong research record/potential in one or more of the following areas: theory and fabrication of thin film devices, circuits, and systems; high speed and low noise architectures for matrix addressed arrays; design of linear integrated circuits, including analog-to-digital converters and other circuits, for image processing. For information please visit the web (WWW) site, http://www.ece.uwaterloo.ca. Salary will commensurate with qualification and experience. Applications with complete curriculum vitae and names of at least three references should be sent to: Professor A.J. Heuns, Coordinator, Faculty Search Committee, Department of Electrical and Computer Engineering, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1. In accordance with Canadian immigration requirements, this advertisement is primarily directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native people, and persons with disabilities.

UNIVERSITY OF WATERLOO — The Department of Mechanical Engineering at the University of Waterloo invites applicators from outstanding individuals for a tenure-track position at any professional level in the area of manufacturing processes. In particular, we are seeking candidates who have a strong background in metal forming based on a knowledge of plasticity, and interest in numerical modelling. Applicants must possess a PhD degree, have excellent communication skills, and should be eligible for registration as a professional engineer in the Province of Ontario. Successful candidates must demonstrate potential for excellence in developing and teaching courses at the undergraduate and graduate levels, supervising undergraduate and graduate student research, establishing a viable externally funded research program and providing service to the Department. Interested applicants should immediately e-mail or fax an expression of interest to: Dr. R.J. Pick, Chair, Department of Mechanical Engineering, University of Waterloo, Waterloo, Ontario, N2L 3G1; Fax: (519) 888-6197; E-mail: rjpick@mechoffice.watstar.uwaterloo.ca to be followed by the submission of a detailed curriculum vitae and the names of three references, to the above address. Applications will be accepted until December 5, 1997 or until suitable applicants are found. All positions are subject to the availability of funds. Salaries will be commensurate with qualifications and experience. Information about the Faculty and Department can be found at http://sail.uwaterloo.ca/~mewww). In accordance with Canadian immigration requirements, this advertisement is directed toward Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities.

UNIVERSITY OF WATERLOO — The Department of Mechanical Engineering at the University of Waterloo invites applications from outstanding individuals for a tenure-track position at the level of Assistant or Associate Professor, in the area of Experimental Fluid Mechanics. In particular, we are seeking candidates who have a strong background and research interest in turbulence measurements and physical modeling. Applicants must possess a PhD degree, have excellent communication skills, and should be eligible for registration as a professional engineer in the Province of Ontario. Successful candidates must demonstrate potential for excellence in developing and teaching courses at the undergraduate and graduate levels, supervising undergraduate and graduate student research, establishing a viable externally funded research program and providing service to the Department. Interested applicants should immediately e-mail or fax an expression of interest to: Dr. R.J. Pick, Chair, Department of Mechanical Engineering, University of Waterloo, Waterloo, Ontario, N2L 3G1; Fax: (519) 888-6197; E-mail: rjpick@mechoffice.watstar.uwaterloo.ca to be followed by the submission of a detailed curriculum vitae and the names of three references, to the above address. Applications will be accepted until December 5, 1997 or until suitable applicants are found. All positions are subject to the availability of funds. Salaries will be commensurate with qualifications and experience. Information about the Faculty and Department can be found at http://sail.uwaterloo.ca/~mewww). In accordance with Canadian immigration requirements, this advertisement is directed toward Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities.

UNIVERSITY OF WATERLOO — The Department of Mechanical Engineering at the University of Waterloo invites applications from outstanding individuals for a tenure-track position at the level of Assistant or Associate Professor, in the area of Experimental Fluid Mechanics. In particular, we are seeking candidates who have a strong background and research interest in turbulence measurements and physical modeling. Applicants must possess a PhD degree, have excellent communication skills, and should be eligible for registration as a professional engineer in the Province of Ontario. Successful candidates must demonstrate potential for excellence in developing and teaching courses at the undergraduate and graduate levels, supervising undergraduate and graduate student research, establishing a viable externally funded research program and providing service to the Department. Interested applicants should immediately e-mail or fax an expression of interest to: Dr. R.J. Pick, Chair, Department of Mechanical Engineering, University of Waterloo, Waterloo, Ontario, N2L 3G1; Fax: (519) 888-6197; E-mail: rjpick@mechoffice.watstar.uwaterloo.ca to be followed by the submission of a detailed curriculum vitae and the names of three references, to the above address. Applications will be accepted until December 5, 1997 or until suitable applicants are found. All positions are subject to the availability of funds. Salaries will be commensurate with qualifications and experience. Information about the Faculty and Department can be found at http://sail.uwaterloo.ca/~mewww). In accordance with Canadian immigration requirements, this advertisement is directed toward Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities.

YORK UNIVERSITY — Faculty of Arts, Department of English. Applications are invited for two tenure-stream positions at the assistant professor level in the Department of English, to commence on July 1, 1998. Both appointments are subject to budgetary approval. The positions are sought in one or more of the following four fields: Canadian, Contemporary, Feminist Theory, or Post-Colonial. Qualifications: PhD in English with specialization in one or more of the above fields. Duties will consist of undergraduate teaching, immediate or eventual teaching in the Faculty of Graduate Studies, and the development of a program of productive research. Candidates must demonstrate excellence in both teaching and research. Salary: Commensurate with qualifications and experience. Applicants should send a letter of application, including a curriculum vitae and a sample of their written work (no longer than 25 pp) to: Prof. M.S. Elliott, Chair, Department of English, Faculty of Arts, York University, 4700 Keele St., North York, Ont. M3J 1P3. Fax: (416) 736-5412. Candidates should also arrange for letters of recommendation from three referees to be sent directly to the above address. Applications should be received by November 21, 1997. York University is implementing a policy of employment equity, including affirmative action for women faculty. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

THE UNIVERSITY OF WESTERN ONTARIO — The Department of English, University of Western Ontario, invites applications for a tenure-track position in Film Studies at the rank of Assistant Professor or above, to begin July 1, 1998. Salary and rank will be commensurate with qualifications and experience. We are particularly interested in candidates with a demonstrated expertise and interest in American film, including American film history and criticism. Western European, Latin-American/Third-world, or Canadian film would be an asset. The completed PhD or equivalent, as well as promise and experience in teaching and research are minimum qualifications; published work would be advantageous. Position is subject to budgetary approval. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the work place, and encourages applications from all qualified individuals, including women, members of visible minorities, aboriginal persons, and persons with disabilities. Send application, dossier or curriculum vitae (including transcript), and three letters of reference to: Professor Patrick Deane, Chair, Department of English, The University of Western Ontario, London, Ontario N6A 3K7 Canada; Fax: (519) 661-3776. Applications must be received by 1 December 1997

UNIVERSITY OF WATERLOO — Dept. of English. Applications are invited for a tenure-track position in the Department of English at the assistant professor level in Writing and Rhetoric. We are interested in candidates with expertise in one or more of the following areas: Composition, Discourse Analysis, Document Design, Graphic Communication, Professional Writing, the history and theory of Rhetoric, Web Design and related areas of online technology. Applications are especially encouraged from candidates with secondary strengths in Literature. A PhD and demonstrated strength in teaching and research are required. Corporate or other professional experience in related areas would be an asset.

ENGLISH

McGILL UNIVERSITY — The English Department invites applications for a tenure-track appointment in Romanticism to begin September 1, 1998 at the rank of assistant professor. PhD required. Applicants should submit a curriculum vitae, three letters of recommendation, and a brief writing sample. Evidence of scholarly promise is a major consideration; some teaching experience and knowledge of French are assets. Candidates who wish to receive an acknowledgment of their application should include a stamped, self-addressed postcard. In accordance with Canadian and Quebec Immigration Laws, first consideration will be given to Canadian citizens and permanent residents. McGill University is committed to equity in employment. Complete applications should arrive no later than November 15 addressed to Professor Gary Wihl, Chair, Department of English, McGill University, 853 Sherbrooke Street West, Montreal, Québec, Canada, H3A 2T6. In the event of a strike by Canada Post in October, please check the department's website for instructions, http://www.arts.mcgill.ca/programs/english/english.html.

Lectureship in Statistics

Department of Statistics
School of Mathematical & Information Sciences
Faculty of Science

Vacancy 917CBC

The Department of Statistics has 19 permanent academic staff and teaches in four major Faculties at two campuses, one located in the Auckland CBD and the other at Tamaki, approximately 20 minutes from the CBD.

Further information about this position and the Department of Statistics can be obtained from the Department's web page http://www.stat.auckland.ac.nz

Applicants should have a PhD, or equivalent, and a proven record in teaching and research. Preference will be given to applicants with interests in any branch of applied statistics or applied probability.

Applicants should be able to demonstrate their ability to undertake research-based teaching at the senior undergraduate and postgraduate levels in applied statistics and data analysis or applied probability. The successful applicant will have the ability to establish collaborative links with other departments of the University and outside organisations in their chosen areas of application.

Commencing salary will be established within the range NZ$44,250 - NZ$53,250 per annum.

Further information and Conditions of Appointment should be obtained from the Academic Appointments Office, telephone 64-9-373 7599 ext 5097, fax 64-9-373 7023, email: appointments@auckland.ac.nz

Further information about The University of Auckland can be found at http://www.auckland.ac.nz

Three copies of applications should be forwarded to reach the Assistant Registrar, Academic Appointments Section, The University of Auckland, Private Bag 92019, Auckland, New Zealand, by **15 December 1997**

Please quote Vacancy Number 917CBC in all correspondence.

ASSISTANT REGISTRAR, ACADEMIC APPOINTMENTS

The University of Auckland

New Zealand

The University has an equal opportunities policy and welcomes applications from all qualified persons

ASSISTANT PROFESSOR

Department of Chemical and Petroleum Engineering

The University of Calgary, Department of Chemical and Petroleum Engineering invites applicants for a three year limited term position at the Assistant Professor level, starting in the next academic year. Although the starting date is flexible, we would appreciate the candidate's availability prior to January 1, 1998

Individuals with an earned PhD and potential for excellent achievements in teaching and research are invited to apply. The specialization is in the area of petroleum engineering, however, a background in petroleum/chemical engineering would be advantageous. The areas of expertise should include one or more of the following: oil and gas reservoir engineering, reservoir simulation, petroleum production and completions, improved oil recovery, formation evaluation and well logging, property evaluation, and environmental engineering for the petroleum industry.

Salary is commensurate with qualifications and experience. The current salary range for an Assistant Professor is $37,400 to $57,226 per annum.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. However, non-Canadians with Ph.D.s in petroleum engineering are encouraged to apply. The University is committed to Employment Equity

Interested individuals should send a curriculum vitae, a statement of teaching and research interests, and the names of three referees, prior to November 30, 1997, to

R. G. Moore, Head
Department of Chemical and Petroleum Engineering
The University of Calgary
2500 University Drive N.W.
Calgary, Alberta T2N 1N4

THE UNIVERSITY OF CALGARY

www.ucalgary.ca

Simon Fraser University
Faculty Positions in Condensed Matter Physics

The Physics Department at Simon Fraser University invites applications for tenure track faculty positions, two in experimental condensed matter physics and one in theoretical condensed matter physics. The appointments will be at the assistant professor level and will take effect in September 1998, subject to final budgetary approval. We are searching for individuals of outstanding background and exceptional promise who will establish vigorous independent research programs and who have a commitment to undergraduate and graduate teaching. Excellent candidates in any area of specialization that will complement and involve interaction with existing programs will be given serious consideration. For one of the experimental positions there is some preference for a candidate in the advanced materials area. The present condensed matter research group at Simon Fraser consists of twenty-one full time faculty with broad research interests. The Physics Department home page can be accessed via http://www.sfu.ca.

This advertisement is directed to Canadian citizens and permanent residents. If a suitable candidate from among qualified Canadian citizens or permanents residents cannot be found, other qualified applicants will be considered. Applications should include a curriculum vitae, publication list and a short statement of teaching and research interests. Candidates should arrange for three letters of reference to be supplied in confidence. All correspondence should be sent to **Professor Robert Frindt, Chair, Department of Physics, Simon Fraser University, 8888 University Drive, Burnaby, BC, Canada V5A 1S6 by December 15, 1997**

University of Toronto at Mississauga

Associate/Assistant Professor Department of Sociology

University of Toronto at Mississauga, Department of Sociology, invites applications for a tenure stream appointment at the level of either Associate or Assistant Professor. Applicants should have completed their PhD, be actively involved in survey research and provide evidence of excellent undergraduate teaching. The position involves the administration of the Hitachi survey research centre with the assistance of a technician (e.g. promoting the Centre by attracting funded research, supervising research and publishing the results In addition to day-to-day administration) and competency in at least one other substantive area. Salary will be commensurate with academic rank. Candidates should send a curriculum vitae and a statement of teaching specializations and research interests plus the names of three referees to the **Chair of the Search Committee, Department of Sociology, University of Toronto at Mississauga, Mississauga, Ontario L5L 1C6.** Appointment will take effect July 1, 1998. Closing date for receipt of applications is **January 15, 1998.** In accordance with Canadian immigration requirements this advertisement is directed to Canadian citizens and permanent residents of Canada. In accordance with its employment equity policy, *the University of Toronto* encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities.

OKANAGAN UNIVERSITY COLLEGE

COLLEGE PROFESSOR

Mathematics & Statistics

Penticton Centre

Okanagan University College is a comprehensive University College offering a range of undergreduate degree, diploma, vocationel, developmental, career, health and technical programs. Following seven years of partnership with the University of British Columbia and the University of Victoria, OUC began to offer degree programs as an independent degree granting institution commencing in the Fall of 1996 in Arts and Sciences (various majors), Education, Nursing, Social Work and Fine Arts. OUC operates campuses in Kelowne, Vernon, Salmon Arm and Penticton, with degree completion programs concentrated in Kelowna.

The Department of Mathematics and Statistics in the Faculty of Science requires a College Professor to teach first and second year Mathematics, first year Statistics, and first year Computer Science.

Required qualification is a Ph.D. Candidates preferably should be in one of the following areas: Discrete Mathematics; Numerical Analysis; or Differential Equations. Applications from candidates in areas of Applied Mathematics are also encouraged. The successful candidate must demonstrate a commitment to excellence in teaching as well as a commitment to excellence in research in his/her field of expertise.

This is a continuing appointment effective August 1, 1998.

Salary and working conditions are governed by the Okanagan University College Faculty Association Collective Agreement. Placement on the salary scale is dependent upon qualifications and experience.

Please submit a curriculum vitae and the names, addresses and telephone numbers of three referees by **December 19, 1997,** quoting **Competition No. 84FAC97** to: **Employee Relations Division, OKANAGAN UNIVERSITY COLLEGE, 1000 K.L.O. Road, Kelowna, B.C. V1Y 4X8.**

Okanagan University College wishes to thank all applicants for their interest. Only those applicants selected for further consideration will be contacted.

CLASSIFIEDS

Duties will include teaching undergraduate and graduate courses. The Department offers distinctive undergraduate and graduate programs (M.A. and PhD) in Literature, Language, Rhetoric, and Professional Writing. Salary negotiable. Appointment effective 1 July 1998. Send resumes, transcripts, writing samples, and letters of reference no later than 1 December 1997 to Dr. Murray McArthur, Chair, Department of English, University of Waterloo, Waterloo, Ontario, N2L 3G1. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native persons, and persons with disabilities. This appointment is subject to the availability of funds.

FILM & VIDEO

UNIVERSITY OF REGINA — Department of Film and Video. Subject to budgetary approval. Applications are invited for a tenure-track appointment in film and video production at the rank of Assistant Professor to commence July 1, 1998. The successful candidate will be expected to teach production classes in film and in video in a BFA programme and carry out creative and research work related to production. Applicants should hold a Masters degree in film production. Teaching experience and a background in directing and/or screenwriting would be an asset. Please submit applications with curriculum vitae, a copy of all university transcripts and the names of three referees who have been asked to send letters by November 30, 1997 to: Dr. Michael Rushton, Dean, Faculty of Arts, University of Regina, Regina, Saskatchewan S4S 0A2. The University of Regina is committed to employment equity. In accordance with Canadian immigration regulations this advertisement is directed to Canadian citizens and permanent residents.

FINANCE

UNIVERSITY OF NEW BRUNSWICK — The Faculty of Business at the University of New Brunswick invites applications for a tenure track position in Finance. This position starts in September 1999, and is subject to budgetary approval. Applicants should have an earned doctorate or equivalent. Rank and Salary will be commensurate with qualifications and experience. Candidates with lesser qualifications will be considered for term appointment. Applications will be accepted until the position is filled. This position is subject to budgetary approval. Please send CV and the names and address of three referees to Professor Eileen Pike, Acting Dean, Faculty of Business, University of New Brunswick, Saint John Campus, PO Box 5050, Saint John, NB E2L 4L5. In accordance with Canadian Immigration Regulations, preference will be given to citizens and permanent residents of Canada. The University of New Brunswick is committed to the principle of employment equity.

UNIVERSITY OF TORONTO — Management. The Division of Management and Economics, University of Toronto at Scarborough is recruiting a tenure stream position in finance, rank open. Duties include undergraduate teaching at the University of Toronto at Scarborough, graduate teaching in the University of Toronto's Joseph Rotman Faculty of Management, and research. Candidates should have a PhD or equivalent, with evidence of excellence in teaching and research. Salary commensurate with qualifications. Interested candidates should send curriculum vitae and evidence of scholarly and teaching ability, and should have three referees send letters, to Professor Sandford Borins, Chair, Division of Management and Economics, University of Toronto at Scarborough, 1265 Military Trail, Scarborough, ON M1C 1A4. Effective date of appointment is July 1, 1998. Deadline for applications is January 10, 1998. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women and men, members of visible minorities, and persons with disabilities.

FINE ARTS

THE UNIVERSITY OF WATERLOO — Department of Fine Arts, invites applications for a tenure track appointment at the Assistant Professor level in art history, effective July 1, 1998. Candidates should have a completed PhD. In addition to a record of scholarly research and publication in their area of specialization, the successful candidate must have a strong commitment to undergraduate teaching and be comfortable in a mainly studio oriented department. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples, and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. This appointment is subject to the availability of funds. Applicants should send a curriculum vitae, a sample of recent writing, and arrange for three letters of reference to Professor Don MacKay, Chair, Department of Fine Arts, University of Waterloo, Waterloo, Ontario, N2L 3G1. The closing date is November 30, 1997.

FOOD SCIENCE

UNIVERSITY OF MANITOBA — The Department of Food Science invites applications from qualified individuals interested in an Assistant Professor position in Food Processing with interest in dairy processing. This tenure-track position requires evidence of competence and commitment to excellence in teaching and research. Duties will include undergraduate and graduate teaching and independent and collaborative research in basic and applied aspects of Food Processing. Multidisciplinary research between departments and with other faculties in the university and other research institutions is encouraged. Communication and interaction with the food processing industry in Manitoba will be expected. A PhD in Food Science, or a closely related field with experience in processing of foods is required. An undergraduate degree in chemical engineering would be an asset. Postdoctoral or industrial experience is highly desirable and the ability to sustain a research program with external funding is expected. The applicable salary range for an Assistant Professor is $40,868.00 to $62,509.00. Starting salary will be commensurate with qualifications. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, aboriginal peoples, and persons with disabilities. Priority consideration will be given to Canadian citizens and permanent residents. The closing date for applications is December 15, 1997 and the anticipated starting date is May 1, 1998. A letter of application, along with résumé, academic transcripts and names, addresses, telephone numbers of three professional references should be sent to: Dr. Richard A. Holley, Head, Department of Food Science, University of Manitoba, Winnipeg, Manitoba, R3T 2N2; Tel: (204) 474-9601; Fax: (204) 474-7630; E-mail: rick_holley@umanitoba.ca. Interested individuals may visit the Department of Food Science website for additional information at: http://www.umanitoba.ca/afs/food_science/.

FOREST SCIENCES

UNIVERSITY OF BRITISH COLUMBIA — Research Associate position to study riparian and stream ecology. Duties include: (1) examining the effects of riparian management on algal and bacterial productivity and organic carbon dynamics; and (2) studying the trophic dynamics in stream ecosystems and how these relationships are affected by riparian management. A background in stream ecology, community and ecosystem ecology, and biostatistics is required. Specific skills should include (1) using radioisotopes to measure algal and bacterial productivity; (2) collection and processing of organic carbon; (3) knowledge of the ecology and taxonomy of aquatic insects; (4) manipulation of experimental mesocosms; and (5) knowledge of forestry and riparian issues in BC. Candidate should be familiar with statistical packages, e.g., SAS and SYSTAT. A PhD and at least two years of postdoctoral experience are required, as well as demonstration of a good, peer-reviewed publication record. Position available for one year, with possible renewal, dependent upon continued grant support and satisfactory performance. Please send a covering letter, CV, and names of three referees to Dr. John Richardson, Department of Forest Sciences, 2357 Main Mall, University of British Columbia, Vancouver, BC, Canada, V6T 1Z4. Applications will be received until 12 December 1997. The University of British Columbia is firm on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. In accordance with Canadian Immigration requirements priority will be given to Canadian citizens an permanent residents of Canada.

FRENCH

UNIVERSITY OF ALBERTA — The Faculty of Arts at the University of Alberta is engaged in an extensive process of staff renewal and is committed to ensuring that the substantial number of hirings anticipated over the next several years will secure for the future the lively and productive intellectual environment on which it prides itself. Applications are invited for a tenure-track position in French, effective July 1, 1998, for an Assistant Professor, in the Department of Modern Languages and Comparative Studies. Entry level salary for assistant professors is currently $39,490. The successful candidate will have a PhD, a native or near-native proficiency in French, a demonstrated interest in research and strong teaching potential. S/he will be expected to teach core language courses in French and undergraduate and graduate courses in some area of linguistics or applied linguistics. S/he should also be prepared to work with counterparts in other languages in the setting up of a new programme in L2 acquisition and pedagogy. Expertise in translation studies would be a welcome second area of specialization. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered. Applications, including a resume, all university transcripts, and three letters of recommendation, should be sent by December 15, 1997, to Dr. Earle Waugh, Acting Chair, Department of Modern Languages and Comparative Studies, University of Alberta, Edmonton, Alberta, Canada, T6G 2E6. The University of Alberta is committed to the principle of equity in employment. As an employer, we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities and members of visible minorities.

FRENCH STUDIES

UNIVERSITY OF GUELPH — The School of Languages and Literatures (Département d'Etudes Françaises) of the University of Guelph invites applications for a tenure-track position in twentieth-century French literature, at the rank of Assistant Professor, beginning August 1, 1998. Duties will include the teaching of twentieth-century French literature/culture and French as a second language at the undergraduate level. Classes will be taught in French, except for occasional cross-listed courses given in English. PhD, native fluency in both languages, and language-teaching experience in French are required. Publications in the fields of interest, competence in feminist studies, and willingness to deliver certain courses in a non-traditional manner will be considered assets (video-link or travel to a neighbouring university). Salary will be commensurate with the candidate's qualifications and experience. Applications consisting of a curriculum vitae and three letters of recommendation should be sent before January 31, 1998, to Dr. A. Thomas, Acting Director, School of Languages and Literatures, University of Guelph, Guelph, Ontario, N1G 2W1, Canada. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. The University of Guelph is committed to an employment equity program that includes special measures to achieve diversity among its faculty and staff. We therefore particularly encourage applications from qualified aboriginal Canadians, persons with disabilities, members of visible minorities and women. This position is subject to final budgetary approval.

UNIVERSITY OF WATERLOO — The Department of French Studies, University of Waterloo, invites applications for a part-time position at the rank of Assistant Professor (eight month appointment) in French Studies beginning July 1, 1998. This is a three-year appointment. The required qualifications are: PhD in French with a specialization in the area of twentieth-century French Cultural Studies and Applied Language Technology. Special consideration will be given to candidates able to teach French literature, culture and language courses. Duties include teaching at the undergraduate and graduate level, and supervising graduate students. Applications accompanied by a curriculum vitae and the names and addresses of three referees should be sent by January 15, 1998, to Dr. Paul G. Socken, Chair, Department of French Studies, University of Waterloo, Waterloo, ON N2L 3G1. Fax: 519-725-0554. Further information on the Department can be found at: http://arts.uwaterloo.ca/FREN/francais.html. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals, including women, members of visible minorities, native peoples and persons with disabilities. This appointment is subject to the availability of funds.

GASTROENTEROLOGY

DALHOUSIE UNIVERSITY and the Queen Elizabeth II Health Sciences Centre seeks applications for the position of Head/Chief of the Division of Gastroenterology in the Department of Medicine. The Division is one of thirteen in the Department of Medicine providing clinical service, undergraduate, postgraduate and continuing medical education. There is a strong input into the research program. This is a clinical appointment with periodic review (geographic full-time) position with the academic rank of Associate/Full Professor dependent upon qualifications. The incumbent should have proven abilities

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DALHOUSIE UNIVERSITY
University Librarian

Dalhousie University invites applications and nominations for the position of University Librarian.

The Dalhousie University Libraries are comprised of the DalTech, Kellogg Health Sciences, and Killam Memorial Libraries with collections of 1.6 million volumes, an operating budget of $7.5 million and a staff of 110. The Libraries serve approximately 1000 Faculty, 11,000 undergraduate and 2,500 graduate students in 10 faculties and, in addition, have a mandate to serve professional groups in the region. A leader in information technology and interuniversity cooperation, the Libraries are a founding member of Novanet, a consortium of 8 universities with the goal of enhancing access to information and knowledge through cooperation for the benefit of their user communities. For further information on Dalhousie University and the Libraries see www.dal.ca on the Internet.

The University Librarian is responsible for the management, planning and development of the Libraries' services, programs, and collections in support of instructional and research information needs; the management of the Libraries' budgets and allocation of financial and human resources; the direction and development of staff; the fostering of collaborative relationships with faculty, students and staff, and the Libraries' participation in regional, national and international cooperative efforts. The University Librarian will provide innovative leadership and vision.

The successful candidate will have strong leadership and management skills; strong interpersonal and communication skills and the ability to maintain effective relationships with administration, faculty, staff, students, and consortium colleagues; a thorough familiarity with the role of an academic research library and the changing nature of information management; and a demonstrated ability to represent the Libraries both within the University and externally. Applicants must have a professional qualification in librarianship. Advanced degrees in librarianship or other academic disciplines are an asset.

The University Librarian is normally appointed with tenure and for a five year term with eligibility for reappointment. Nominations and applications (including curriculum vitae and the names of five referees) should be sent by ***January 5, 1998*** to:

Dr. Warwick C. Kimmins
Acting Vice-President (Academic and Research)
Chair of the University Librarian Search Committee
Main Floor, Arts and Administration Building
Dalhousie University
Halifax, NS B3H 4H6

In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. Dalhousie is an Employment Equity/Affirmative Action employer. We encourage applications from qualified Aboriginal peoples, persons with a disability, racially visible persons, and women. Applications and nominations will be treated confidentially.

REGIONAL SERVICES LIBRARIAN

The University of Northern British Columbia is a new Canadian university which opened in September, 1994. UNBC has a regional mandate to serve the northern two thirds of the Province, with regional offices in Prince Rupert, Fort St. John and Quesnel, and a main campus located in Prince George (population 75,000). Reporting to and working closely with, the Head of Information Services you will identify the library needs of students in outlying regions and act as liaison between the University students, faculty, college and public libraries. This will include working in close cooperation with the Department of Regional Operations.

You will provide training in the use of library information systems to regional students which will involve on-site visits to each of the course delivery locations. You will also provide reference services to on-campus students and faculty.

In addition to an MLS from an accredited library school, you have a demonstrated knowledge of academic library information services in a highly automated environment and a familiarity with adult education and off-campus library services principles.

The starting salary for this position will be determined by qualifications and experience.

Letters of application, accompanied by a curriculum vitae and the names, addresses and phone numbers of three references, should be post-marked on or before January 9, 1998, to: Peter McDougall, Director of Human Resources, University of Northern British Columbia, 3333 University Way, Prince George, BC V2N 4Z9. Fax (250) 960-5695. While we greatly appreciate all the replies we receive, we regret that we are only able to reply to applicants of immediate interest.

IN ACCORDANCE WITH CANADIAN IMMIGRATION REQUIREMENTS, PRIORITY WILL BE GIVEN TO CANADIAN CITIZENS AND PERMANENT RESIDENTS OF CANADA. THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA IS COMMITTED TO EMPLOYMENT EQUITY AND ENCOURAGES APPLICATIONS FROM WOMEN, ABORIGINAL PEOPLES, PERSONS WITH DISABILITIES AND MEMBERS OF VISIBLE MINORITIES.

UNBC
UNIVERSITY OF NORTHERN BRITISH COLUMBIA

Dean of the Faculty of Kinesiology
The University of Calgary

The University of Calgary invites applications and nominations for the Dean of the Faculty of Kinesiology with a term commencing July 1, 1998. The successful candidate will have a Ph. D. in Kinesiology or a related discipline.

The University of Calgary seeks a person with a vision which recognizes and values the varying disciplinary commitments of the Faculty of Kinesiology. The applicant will have proven leadership abilities and administrative experience in an academic setting. Operating within some of the finest facilities in the world, the Dean will work to enhance the national and international research and academic reputations of the Faculty, advocating the place of Kinesiology in the development of scientific knowledge and in the advancement of the human condition through both the natural and social sciences. The Dean will have the ability to work with various communities both on and off campus.

The Faculty of Kinesiology is one of the largest of its kind in Canada with more than 30 full-time faculty members, 650 undergraduate students, and 50 graduate students. Programs of study are offered at the Bachelor (B. Kin. and B. Sc.) and the Masters (M.Sc. and M. Kin.) levels. Kinesiology has strong ties with the Faculties of Medicine, Engineering, Education, and Social Sciences, and Kinesiologists contribute to doctoral programs in these areas. The Faculty is comprised of many groups including the Human Performance Laboratory, Sports Medicine Centre, Sports Technology Research Centre, Social Science Research Group, as well as the Active Lifestyle and Sport Division composed of Athletics, Campus Recreation, Facilities, and the Olympic Oval. A profile of the University and the Faculty of Kinesiology is available on the world wide web at http://www.ucalgary.ca.

Situated in the foothills of the Canadian Rockies, Calgary has a highly educated population of 750,000 and the University benefits from supportive interactions with its vibrant, surrounding communities. The University of Calgary has approximately 22,500 full-time students and 3,150 academic and support staff. It is an exciting place of education and scholarly inquiry with growing national and international stature.

In accordance with Canadian Immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary is committed to Employment Equity.

Applications along with a curriculum vitae and the names of three references, should be submitted by December 15, 1997 to:

Dr. R.B. Bond
Acting Vice-President (Academic)
The University of Calgary
2500 University Drive NW
Calgary, Alberta T2N 1N4
(403) 220-3381

THE UNIVERSITY OF CALGARY

www.ucalgary.ca

in the areas of administration, research, teaching and patient care. It is expected that the incumbent would establish his/her own area of research but be supportive of academic development broadly within the discipline. Candidates must have FRCPC certification in Gastroenterology (or equivalent) and be eligible for registration with the College of Physicians and Surgeons of Nova Scotia. In accordance with Canadian immigration requirements this advertisement is directed to Canadian citizens and permanent residents of Canada. Dalhousie University is an Employment Equity/Affirmative Action employer. The University encourages applications from Aboriginal Peoples, persons with a disability, racially visible persons and women. Interested applicants should submit a complete curriculum vitae and the names of three referees to Dr. R.L. Kirby, Chair, Search Committee, Nova Scotia Rehabilitation Centre Of If Health Sciences Centre, 1341 Summer Street, Halifax, N.S. B3H 4K4. Closing date for receipt of applications is 30 days from date of this advertisement.

HEALTH SERVICES ADMINISTRATION

DALHOUSIE UNIVERSITY — School of Health Services Administration. Applications are invited for a full-time, probationary, tenure track position (subject to budgetary approval) at the rank of Assistant Professor in the School of Health Services Administration, beginning 1 August 1998. The School, positioned within the Faculty of Health Professions, offers Diploma and Masters of Health Services Administration programs to both full and part-time students. In addition the School offers joint graduate programs in Nursing and Law. The combined enrolment currently exceeds 100 students. The Mission of the School is to create a cadre of health services administrators with a commitment to life-long learning and quality of care and to function as responsible, productive members of society. The graduate program is accredited by the Accrediting Commission on Education for Health Services Administration. The School is a member of the Association of University Programs in Health Administration and the European Healthcare Management Association. Designation as a World Health Organization Collaborating Centre is pending. Applicants should hold a PhD., preferably have graduate teaching experience, defined relevant research interests, and a commitment to developing, with health sector stakeholders, innovative educational opportunities. The successful candidate will have primary teaching and research interests in one or more of the following areas: evidence based decision making, health services administration/management, management information systems, organizational theory, quality management, and health care marketing. Salary will be commensurate with qualifications and experience. In accordance with Canadian immigration requirements, this advertisement is directed towards Canadian citizens and permanent residents of Canada. Dalhousie has a policy of affirmative action with respect to: aboriginal peoples; persons with a disability; racially visible people; and, women. Applications [including a C.V. and the names, addresses, and telephone numbers of three references), should be sent by 1 December 1997 to: Dr. Thomas A. Rathwell, Director, School of Health Services Administration, Dalhousie University, 5599 Fenwick Street, Halifax, Nova Scotia B3H 1R2; Ph: (902) 494 7097; Fax: (902) 494 6849; E-mail: trathwell@kilcom1.ucs.dal.ca

HISTORY

UNIVERSITY OF TORONTO — History of Early Modern Europe (Renaissance and Reformation). The Department of History, University of Toronto, invites applications for a tenure-track appointment at the rank of Assistant Professor in the history of Continental Europe, ca 1400-1600, effective 1 July , 1998. Specialization in intellectual, cultural, political or religious history preferred. Applicants must have completed a PhD and show promise of excellence in teaching and scholarly research and publication. The appointee will be responsible for teaching undergraduate and graduate level courses in the fields. Salary will be commensurate with experience. Send applications, a curriculum vitae, and ask three referees to write letters to Professor R.C. Brown, Chair, Department of History, University of Toronto, 100 St. George Street, Room 2074, Toronto, Canada, M5S 3G3. Applications will close 10 November, 1997. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian Citizens and permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities.

UNIVERSITY OF TORONTO — History of Modern China. The Department of History, University of Toronto, invites applications for a tenure-track appointment at the rank of Assistant Professor in the field of Modern History of China, effective 1 July, 1998. Applicants must have completed a PhD and show promise of excellence in teaching and scholarly research and publication. The appointee will be responsible for teaching undergraduate and graduate level courses, including a senior undergraduate course in the history of Modern China's Foreign Relations. Salary will be commensurate with experience. Send applications, a curriculum vitae, and ask three referees to write letters to Professor R.C. Brown, Chair, Department of History, University of Toronto, 100 St. George Street, Room 2074, Toronto, Canada, M5S 3G3. Applications will close 10 November, 1997. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian Citizens and permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities.

UNIVERSITY OF BRITISH COLUMBIA — The Department of History, University of British Columbia, invites applications for a tenure-track appointment at the level of Assistant Professor, effective July 1, 1998, in Twentieth-Century United States History. Applicants should have a research interest in American gender and/or cultural history, a completed or soon-to-be-completed PhD, and a commitment to scholarship reflected in published or publishable work. Teaching experience at the post-secondary level would also be an asset. The successful candidate will be expected to have the intellectual breadth and flexibility that the Department increasingly needs as it moves in new directions. Our department offers the appointee a variety of teaching possibilities each year selected from among: an introductory American survey; senior undergraduate, honours, and graduate courses in Twentieth-Century American History; comparative courses within the department; and interdisciplinary teaching with other members of the faculty. This position is subject to funding, and salary will be commensurate with qualifications and experience. Applicants should send a covering letter, a current CV and arrange for three letters of reference, all to be sent to: Prof. Paul Krause, Chair, Search Committee in American History, #1297-1873 East Mall, Vancouver, BC, V6T 1Z1. Complete applications must be received by January 5, 1998 In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of British Columbia hires on the basis of merit and is committed to employment equity. We welcome all qualified applicants, especially women, aboriginal people, visible minorities and persons with disabilities. Appointment may be considered at a higher rank for a member of a designated equity group with exceptional qualifications. We encourage all qualified persons to apply.

UNIVERSITY OF WESTERN ONTARIO — The Department of History and Political Science at The University of Western Ontario invite applications for a tenure-track position at the Assistant Professor level in the politics and history of Modern Russia/Eastern Europe, beginning July 1, 1998. Since this is a joint appointment, the successful candidate will be expected to teath and supervise graduate students in both departments. Interdisciplinary experience would therefore be an asset. A PhD is required for this position. Teaching experience and publications are desirable. Candidates should send a letter of application, a curriculum vitae and three letters of reference to: Prof. T.F. Sea, Chair, Department of History, University of Western Ontario, Social Science Centre 4328, London, ON N6A 5C2; Tel: (519) 661-3647; Fax: (519) 661-3010. Deadline for application is January 9, 1998. The position is subject to budgetary approval. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

UNIVERSITY OF WESTERN ONTARIO — The Department of History at the University of Western Ontario invites applications for a tenure-track position at the Assistant Professor level (floor salary: $45,000), in modern French history, with particular emphasis upon the eighteenth century, beginning July 1, 1998. The successful candidate will also be expected to teach in at least one of the following fields: European colonialism/imperialism; New France; history of international relations. A PhD is the minimum qualification for this position. Teathing experience and publications are desirable. Candidates should send a letter of application, a curriculum vitae and three letters of reference to: Prof. T.F. Sea, Chair, Department of History, University of Western Ontario, Sonal Science Centre 4328, London, ON N6A 5C2; Tel: (519) 661-3647; Fax: (519) 661-3010. Deadline for application is January 9, 1998. Positions are subject to budget approval. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

HUMAN NUTRITION

ST. FRANCIS XAVIER UNIVERSITY — The Department of Human Nutrition at St. Francis Xavier University invites applications for a full-time tenure track position in Human Nutrition to begin on August 15, 1998. The candidate should have completed a PhD in nutrition by the start of the appointment. Salary and rank will reflect experience. Completion of a dietetic internship is required. Preference will be given to candidates who have experience in teaching and/or dietetic practice. Responsibilities include teaching undergraduate courses in the human nutrition programs and developing an appropriate research program. The candidate will also be expected to contribute to general faculty duties in the Department and in the University. The closing date for receipt of applications is December 15, 1997 or until the position is filled. The Department offers a four-year program leading to a B.Sc. in Human Nutrition, Major, Advanced Major, and Honours. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Applicants should send a curriculum vitae and official transcripts, and arrange to have sent three (3) letters of reference to: Dr. A.D. Sullivan, Chair, Department of Human Nutrition, St. Francis Xavier University, P.O. Box 5000, Antigonish, N.S. B2G 2W5.

IMMUNOLOGY

DALHOUSIE UNIVERSITY — Research Associate — Immunology at IWK Grace Health Centre, Department of Pediatrics, Dalhousie University, Nova Scotia, Canada. Applicants are invited for the position of Research Associate to oversee and coordinate collaborative research among four independent investigators in the Immunology Research Group. Research projects involve the study of cytokines, chemokines and adhesion molecules in leukocyte migration in experimental models of asthma, arthritis and inflammatory bowel disease. The successful candidate will be expected to assist with the supervision of research technicians and trainees and conduct research largely independently. Requirements are a related doctoral degree (MD, PhD or equivalent), postdoctoral training or equivalent experience. Please send Curriculum Vitae with names of three references to: Dr. Andrew C. Issekutz, Immunology Research Laboratories, IWK Grace Health Centre, 5850 University Ave., Halifax, Nova Scotia, Canada, B3J 3G9; E-Mail: aissekutz@iwkgrace.ns.ca In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada, but others may apply.

INTERNAL MEDICINE

UNIVERSITY OF MANITOBA — The Department of Internal Medicine at the University of Manitoba, Health Sciences Centre and St. Boniface General Hospital is seeking a Consortium Head for the Section of Nephrology. This is a geographical full-time, contingent position and requires a forward thinking individual with strong administrative skills. The Section currently has 11 full-time members, and has major programs in provincial patient care delivery, undergraduate and postgraduate teaching, and research. Candidates must have senior specialty qualifications in Nephrology in the country of current practice and must be eligible for registration with the College of Physicians and Surgeons of Canada. Certification in Nephrology by the Royal College of Physicians and Surgeons of Canada is preferred. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal people and persons with disabilities.

This advertisement is directed to Canadian citizens and permanent residents. Salary and rank will be commensurate with experience and academic qualifications. Applications should be accompanied by a curriculum vitae and a list of publications as well as the names of 3 references. Please send correspondence to: Dr. L.E. Nicolle, M.E. Sellers Professor and Head, Department of Internal Medicine, Room GC 430 Health Sciences Centre, 820 Sherbrook Street, Winnipeg, Manitoba, R3A 1R9. Closing date for receipt of applications is November 30, 1997.

ITALIAN

UNIVERSITY OF ALBERTA — The Faculty of Arts at the University of Alberta is engaged in an extensive process of staff renewal and is committed to ensuring that the substantial number of hirings anticipated over the next several years will secure for the future the lively and productive intellectual environment on which it prides itself. As part of its new programme in Italian Studies the Faculty of Arts at the University of Alberta invites applications for a tenure-track position in Italian, effective July 1, 1998, at the level of Assistant Professor in the Department of Modern Languages and Comparative Studies. Entry level salary for assistant professors is currently $39,490. The successful candidate will have a PhD, a native or near-native proficiency in Italian, a demonstrated interest in research and strong teaching potential. She will also be able to contribute in a dynamic way to the preparation of the new programme by collaborating with members of other departments to enhance awareness of the new Italian Studies programme. His/her area of specialization will therefore be a non-traditional area of Italian studies such as film, media, gender and will have a strong interdisciplinary component. S/he will also be expected to each core Italian courses as well as courses

Assistant or Associate Professor, Forest Operations

The University of Northern British Columbia is a new Canadian university which opened in 1994. UNBC is in its third year of operation with approximately 2,000 full-time equivalent undergraduate and graduate students in 40 academic programs. We have a regional mandate to serve the northern two thirds of the Province, with regional offices in Prince Rupert, Fort St. John and Quesnel, and a main campus located in Prince George (population 75,000). We offer an unbeatable combination ... a strong mandate for growth ... a modern and comprehensive campus ... and a wonderful setting in the heart of B.C.

The University of Northern British Columbia has just completed a strategic planning process - "Planning for Growth". This plan will direct the future of UNBC for the next five years.

As a new, small, research intensive university, we have a broad range of undergraduate and graduate programs and we are looking for an enthusiastic, motivated professional to join our College of Science and Management Faculty.

Assigned to the Forestry Program, you will teach forest harvest systems, terrain analysis and other operational aspects of forest land management. A variety of teaching, research and service activities will be required, including playing an important role in UNBC's 14,000 ha research forest.

A PhD in Forestry, Forest Engineering or a closely related field with a demonstrated commitment to teaching excellence are essential. Professional experience in boreal or sub-boreal forest ecosystems relating to forest harvest systems, terrain assessment and/or geotechnical engineering is strongly desirable. You must possess a keen interest in interdisciplinary and innovative research to support sustainable management of forest ecosystems.

UNBC offers a comprehensive benefits package and competitive salary.

The preferred starting date is **June 1, 1998** and applications received prior to **January 31, 1998** will be given preference. Letters of application, accompanied by a curriculum vitae and the names of at least three references should be sent to: **Dr. Deborah Paff, Vice President Academic, University of Northern British Columbia, 3333 University Way, Prince George, BC V2N 4Z9. Fax (250) 960-5791.** Inquiries may be made to: **poff@unbc.edu**

UNBC
UNIVERSITY OF NORTHERN BRITISH COLUMBIA

IN ACCORDANCE WITH CANADIAN IMMIGRATION REQUIREMENTS, PRIORITY WILL BE GIVEN TO CANADIAN CITIZENS AND PERMANENT RESIDENTS OF CANADA. THE UNIVERSITY OF NORTHERN BRITISH COLUMBIA IS COMMITTED TO EMPLOYMENT EQUITY AND ENCOURAGES APPLICATIONS FROM WOMEN, ABORIGINAL PEOPLES, PERSONS WITH DISABILITIES AND MEMBERS OF VISIBLE MINORITIES.

University of Alberta
Edmonton

Vice President
(Research and External Affairs)

The University of Alberta invites applications from, and nominations of, qualified women and men for the position of Vice-President (Research and External Affairs). Ideally, the appointee will take office on July 1, 1998. The University plans to conduct interviews in April and May, 1998, and therefore wishes to receive applications by February 27, 1998. The search will continue, however, until the position is filled.

The University of Alberta is recognized as a centre of excellence in Canadian higher education, with many teaching and research programs of international distinction. Founded in 1908, it is one of Canada's largest, full-service research-intensive universities, with a full-time enrollment of over 29,000 students in undergraduate, graduate and professional programs. It has a global budget in excess of $540 million and attracted over $112 million in externally-sponsored research funding in 1996-97. The University has one of North America's outstanding libraries, with collections of over 5 million printed volumes, 3.6 million microforms, 1.3 million maps, 450,000 government documents and 26,000 serial subscriptions. University endowments total some $359 million, and annual giving from individuals, corporations, associations and foundations has increased over the last three years from $12 million to more than $15.6 million. The University values its strong partnerships with industry, community and business leaders and alumni and seeks to enhance these. A capital campaign launched in April, 1997 has realized $90 million of its $144.65 million goal.

The University of Alberta's vision is to be indisputably recognized, nationally and internationally, as one of Canada's finest universities and amongst a handful of the world's best. A number of strategic initiatives are key to achieving this vision: attracting and retaining outstanding faculty and students; creating an optimal teaching and learning environment; identifying and focusing on what we do best; reinvigorating and enhancing our partnerships with our broader community; adding to the diversity and breadth of our international connections; achieving our ambitious fund-raising goals; and strengthening our *Research Makes Sense* initiative.

The Vice-President (Research and External Affairs) is responsible for providing vision and leadership with respect to both research and external affairs. Reporting to this Vice-President are the Associate Vice-President (Research), the Research Grants Office, Industry Liaison Office, External Affairs, Development Office, Alumni Affairs, Public Affairs, Government Relations, and three interdisciplinary research units. The Vice-President (Research and External Affairs) has overall responsibility for the administration of research grants and contracts, for enhancing and promoting technology commercialization, for liaison between the central administration and public and private institutions which fund research, and for the dissemination of research findings to the various communities the University serves. The University of Alberta Campaign is also a major responsibility of this Vice-President. Candidates will have a distinguished record of research and teaching and experience in academic administration. The ability to coordinate work in a multi-disciplinary environment, coupled with some background in fundraising, is vital to the success of this portfolio.

Applications or nominations with curriculum vitae should be sent to:

Dr. Roderick Fraser, President
c/o University Secretariat
2-5 University Hall
University of Alberta
Edmonton, Alberta, Canada T6G 2J9
Telephone: (403) 492-3212
Fax: (403) 492-1424

The University of Alberta is committed to the principle of equity in employment. As an employer we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities and members of visible minorities.

...it makes *sense*.
UNIVERSITY OF ALBERTA

CLASSIFIEDS

in his/her area of specialization. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. If suitable Canadian citizens and permanent residents cannot be found, other individuals will be considered. Applications, including resume, all university transcripts, and 3 letters of recommendation, should be sent by December 15, 1997 to Dr Earle Waugh, Acting Chair, Department of Modern Languages and Comparative Studies, The University of Alberta, Edmonton, Alberta, Canada, T6G 2E6. The University of Alberta is committed to the principle of equity in employment. As an employer, we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities and members of visible minorities.

KINESIOLOGY

YORK UNIVERSITY — Faculty of Arts, Kinesiology and Health Science. Applications are invited for a tenure-track appointment at the Assistant Professor level in Biomechanics/Rehabilitation. The department wishes to develop a graduate stream in biomechanics to complement current graduate and undergraduate offerings in exercise physiology, health psychology, fitness/epidemiology and sport therapy. The applicant's area of interest should encompass one or more of the following: clinical ergonomics/dysfunctional anatomy/sport therapy. Duties will include the supervision and teaching of graduate students and undergraduate teaching. A PhD is required and priority will be given to a promising publication record in refereed journals and the ability to develop a productive research programme supported by external funding. Applicants should send a curriculum vitae, a covering letter stating future research goals, relevant reprints, and the names, addresses and telephone numbers of at least 3 individuals who may act as references by 31st January, 1998 to: Dr. Roger Kelton, Chair, Search Committee, Kinesiology and Health Science, York University, North York, Ontario M3J 1P3. Duties commence July 1, 1998. The position is subject to budgetary approval. Further information can be obtained at www.yorku.ca/dept/physed. York University is implementing a policy of employment equity, including affirmative action for women faculty. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

LABOUR STUDIES

MCMASTER UNIVERSITY — Labour Studies Programme. A tenure track joint appointment will be made in Labour Studies and another department related to the candidate's area of interest, by McMaster University at the Assistant Professor level commencing July 1, 1998 subject to funding availability. Labour Studies is an interdisciplinary programme, resident in the Faculty of Social Sciences, which includes Anthropology, Economics, Political Science, Social Work and Sociology. This is the first in a series of planned interdisciplinary appointments in the Labour Studies Programme made possible by the recent designation of Work and Society as a strategic area by the University. This will be an interdisciplinary subject area that focuses on all forms of work (paid and unpaid) and links the work experience with gender and race relations, state regulation, aging, family life and the community. Resources have been allocated to deliver new undergraduate courses, to launch an interdisciplinary M.A. in Work and Society, and to establish new educational links with labour and community groups. Responsibilities will include undergraduate and graduate teaching and building links with community and labour groups. The successful candidate will be expected to attract research funds and carry out an independent research programme leading to peer-reviewed publications. Candidates should have an interdisciplinary approach to studies in work issues, labour and society and must have a PhD in a relevant discipline. In accordance with Employment Equity legislation, McMaster encourages applications from all qualified candidates, including Aboriginal peoples, persons with disabilities, members of visible minorities and women. In accordance with Canadian Immigration requirements, this notice is directed to Canadian citizens and permanent residents. This encouragement is in keeping with Work and Society's focus on the ways in which structural forces (e.g. social class, gender, race, age, ability, sexuality, culture) affect workers and their workplaces, and with the Labour Studies Programme's longstanding commitment to teaching and research that reflects the diversity and concerns of the community. Further information on Labour Studies and the Work and Society strategic area can be found on the Labour Studies Home Page at www.socsci.mcmaster.ca/~labrst/. Applicants should send a curriculum vitae and arrange to have three letters of reference sent to the Director, Labour Studies Programme, McMaster University, Hamilton, Ontario L8S 4M4. The application deadline is December 15, 1997.

MANAGEMENT

SAINT MARY'S UNIVERSITY — Department of Management, Assistant or Associate Professor Applications are invited for a tenure track position in the field of Industrial Relations. Minimum requirements include an earned doctorate, teaching experience, and an established research program. Business or legal experience is desirable. The position begins September 1, 1998 subject to budgetary approval. Applications, including curriculum vitae, university transcripts, and letters of reference from three referees should be sent to Dr John Chamard, Chair, Department of Management, Saint Mary's University, Halifax, Nova Scotia, B3H 3C3, or by fax: (902) 420-5119. Applications will be considered until positions is filled. This advertisement is directed to Canadian citizens and permanent residents. Saint Mary's University is committed to the principles of Employment Equity. Visit Saint Mary's University website at http://www.stmarys.ca

UNIVERSITY OF TORONTO — Joseph L. Rotman School of Management. Applications are invited from candidates with qualifications for positions in: (1) Accounting (Assistant Professor, tenure-track); (2) Finance (Assistant Professor, tenure-track); (3) Marketing (open rank, tenure-track or with tenure); (4) Marketing (Assistant Professor, tenure-track); (5) International Business (Assistant Professor, tenure-track); (6) Operations Management (Assistant Professor, tenure-track), beginning July 1, 1998. PhD or DBA degree (completed or near completion) is expected, preferably with excellent teaching and research experience. Duties include research and teaching at both graduate and undergraduate levels. Salary commensurate with qualifications, teaching and practical experience. The positions are subject to budgetary approval. The University of Toronto encourages applications from qualified men and women, members of visible minorities, aboriginal peoples, and persons with disabilities. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. Please send by December 5, 1997, a letter of application with a curriculum vitae and the names of three references to: Dr Peter Pauly, Associate Dean, Research & Academic Resources, Joseph L. Rotman School of Management, University of Toronto, 105 St. George Street, Toronto, Ontario, Canada, M5S 3E6. Fax (416) 978-5813; E-Mail pauly@mgmt.mgmt.utoronto.ca

MARKETING

UNIVERSITY OF MANITOBA — Department of Marketing Applications are invited for two tenure track positions at the University of Manitoba. Strong preference in filling these positions will be given to those with the ability to teach in one or more of the areas of international marketing, marketing management, retail marketing, services marketing, sales management, marketing research or advertising. Rank at the Assistant or Associate Professor level, based on qualifications and experience. Applicants must have a PhD or be ABD nearing completion in Marketing, or closely related field. Responsibilities include research and teaching at the undergraduate and graduate levels and professional service within the University and community. The successful candidates will have a record of publication, be actively engaged in a promising research program and be motivated and have the ability to contribute to our graduate programs, particularly the PhD program. Salary is competitive and will depend on qualifications, experience and research record. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal peoples and persons with disabilities. Priority consideration will be given to Canadian citizens and permanent residents. These positions are subject to final budget authorization. Complete applications and three (3) letters of reference should be sent to: Dr. Walter Good, Head, Department of Marketing, University of Manitoba, Winnipeg, Manitoba, R3T 5V4. Appointment date is open; July 1, 1998 preferred. The closing date for receipt of applications is November 30, 1997.

MATHEMATICS & STATISTICS

UNIVERSITY OF VICTORIA — The Department of Mathematics and Statistics at the University of Victoria invites applications for two tenure-track positions at the Assistant Professor level to commence on July 1, 1998. Applicants for the first position should have a Ph.D. in a subject of Modern Applied Mathematics (e.g. wavelet analysis, computational fluid dynamics, neural networks); applicants for the second position should have a Ph.D. in Statistics or a related discipline and should possess the expertise to teach both applied and theoretical courses in statistics and probability theory. A strong commitment to undergraduate and graduate teaching and a demonstrated record of research is expected from all applicants. In consideration of the current gender imbalance in the Department, women are especially encouraged to apply. The positions are subject to approval by the Board of Governors of the University of Victoria. The University of Victoria is committed to employment equity and encourages applications from all qualified individuals including women, members of visual minorities, aboriginal peoples, and persons with a disability. In accordance with the Canadian Immigration Requirements, priority will be given to Canadian citizens and permanent residents. Applications should include a curriculum vitae and should identify the date of availability. In addition, applicants should arrange for three letters of reference to be sent to: Office of the Chair, Department of Mathematics and Statistics, University of Victoria, P.O. Box 3045, Victoria, BC V8W 3P4 Canada; Telephone: (250) 721-7436, FAX: (250) 721-8962; E-mail: acme@uvvm.uvic.ca. The closing date for applications is December 31, 1997.

MICROBIOLOGY & IMMUNOLOGY

UNIVERSITY OF BRITISH COLUMBIA — A research associate position is available immediately, for approximately one year. Applicants should have several years of postdoctoral experience in site-directed mutagenesis, the molecular biology of anoxygenic photosynthesis, and the ecology and systematics of anoxygenic phototrophs. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents. The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply. Send applications before Nov 30, 1997, to J.T. Beatty, Dept. of Microbiology & Immunology, UBC, 300-6174 University Blvd, Vancouver, BC, V6T 1Z3

MUSIC

THE UNIVERSITY OF ALBERTA — Department of Music, Position in Ethnomusicology. The Faculty of Arts at the University of Alberta is engaged in an extensive process of staff renewal and is committed to ensuring that the substantial amount of hiring anticipated over the next several years will secure for the future the lively and productive intellectual environment on which we pride ourselves. The Department of Music is engaged in that renewal. Accordingly, applications are invited for a tenure track position in Ethnomusicology at the Assistant Professor level (1997-98 salary range from $39,490). Applicants should have a completed PhD with demonstrable potential for excellence in teaching and research. Duties will include teaching undergraduate courses and graduate seminars in ethnomusicology, advising theses and dissertations, assisting in the direction of the Centre for Ethnomusicology, taking part in interdisciplinary seminars, participating in departmental governance, and carrying on an active program of research and publication. Ethnomusicology at the University of Alberta is situated within a dynamic and collegial interdisciplinary graduate program and emphasizes a socially grounded, cross-cultural engagement with musical processes including involvement in performance, documentation and community partnerships through the Centre for Ethnomusicology. In addition to undergraduate and graduate programs in performance and composition, the Department offers the BA (hon), MA and PhD in music for students wishing to specialize in ethnomusicology, theory, or musicology. Within these programs, intellectual breadth is encouraged through study in all three areas as well as in anthropology, cultural and critical theory, and other non-music disciplines. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. If a suitable Canadian citizen or permanent resident cannot be found, other individuals will be considered. Letter of application, curriculum vitae, three confidential letters of reference, and official transcripts of graduate work should be sent to Dr. Fordyce Piet, Chair, Department of Music, University of Alberta, 3-82 Fine Arts Building, Edmonton, Alberta, T6G 2C9. Appointment date: 1 July 1998. Application deadline: 5 January 1998. The University of Alberta is committed to the principle of equity in employment. We encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

NEUROLOGY

MCGILL UNIVERSITY — Montreal Neurological Institute. Signal Transduction, Molecular Neurobiologist, Neurooncologist, Neuropathologist. The Montreal Neurological Institute (MNI) is seeking to recruit six PhD or MD scientists interested in signal transduction and cell growth control, molecular neurobiology, and neurooncology. Openings at all faculty levels are available to be housed in a new 19,000 sq. ft. Brain Tumor Research Center (BTRC) at the MNI. The BTRC will be an integrated basic and clinical research center dedicated to understanding the processes of proliferation, differentiation, and apoptosis of neural tumor cells. Investigators will hold tenure-track academic appointments within the Faculty of Medicine at McGill, and will be provided with ample start-up funds. The academic environment and collaborative potential for basic and clinical neuroscience at the MNI, at McGill and in Montreal are excellent. Montreal is a cosmopolitan, bilingual city known for its high quality of life. Applications should be sent to: Dr. David Kaplan, Scientific Head, Brain Tumor Research Center, Montreal Neurological Institute, 3801 University Street, Montreal, Quebec, Canada, H3A 2B4. The deadline for receipt of applications is January 31, 1997. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. McGill University is committed to Equity in Employment.

UNIVERSITY OF MANITOBA — The Department of Pediatrics and Child Health, University of Manitoba, and the Children's Hospital, Health Sciences Centre are seeking a contingent geographic full-time Pediatric Neurologist at the rank of Assistant Professor. The Health Sciences Centre is a major tertiary care health facility serving a population base of over 1 million. The successful candidate will join another Neurologist in the Section of Pediatric Neurosciences and should have basic research or clinical investigation interest. In addition to clinical expertise, the individual would also participate in the educational programs of undergraduate medical students, postgraduate pediatric residents and neurology fellows. Ample opportunity for collaborative research exists. Candidates must have Senior Specialty qualifications in Neurology in the country of current practice and must be eligible for registration with the College of Physicians and Surgeons of Manitoba. Certification in Neurology by the Royal College of Physicians and Surgeons of Canada is Preferred. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal peoples and persons with disabilities. In accordance with Canadian Immigration requirements, priority consideration will be given to Canadian citizens and permanent residents. Interested candidates should send their curriculum vitae together with names and addresses of three referees to: Dr. F. Booth, Section Head, Pediatric Neurosciences, Children's Hospital, 840 Sherbrook St., Winnipeg, Manitoba, R3A 1S1. Closing date for receipt of applications is January 2, 1998.

NURSING

THE UNIVERSITY OF ALBERTA Faculty of Nursing is looking for one (1) highly qualified individual for an academic position beginning July, 1998 at the assistant or associate professor level ($39,490.00 - $70,124.00). Appointment salary is commensurate with qualifications and experience. Preferred candidates will have clinical expertise and/or specialization in the areas of maternal-child, community health, or critical care nursing. Ideal candidates will have a doctoral degree, preferably in nursing. Other qualifications include, but are not limited to, a Master's degree in nursing, and an established program of research reflected in publications in refereed journals. Applicants must hold current nursing registration in Alberta or be eligible to be registered as a nurse in the Province of Alberta. Applicants should submit a curriculum vitae, and the names of three referees to: Dr. Marilynn J. Wood, Dean, Faculty of Nursing, University of Alberta, 3-129 Clinical Sciences Building, Edmonton, Alberta, Canada T6G 2G3. Closing date: December 31, 1997. The University of Alberta is committed to the principle of equity in employment. As an employer we welcome diversity in the workplace and encourage applications from all qualified women and men, including Aboriginal peoples, persons with disabilities, and members of visible minorities.

PATHOLOGY

MCMASTER UNIVERSITY — The Department of Pathology, McMaster University invites applicants for a full-time tenure track faculty position that is currently available. The successful candidate is required to have a background in the area of the pathobiology of arthritic diseases. The candidate will join an active group in the molecular regulation of inflammation and will be expected to collaborate closely with others in the group. The candidate will be responsible for initiating a new unit dealing with gene therapy in arthritic disease. In particular, the candidate should have shown evidence of independent research capacity and productivity in aspects of cellular and molecular mechanisms regulating inflammation in the joints, with a solid understanding of matrix metabolism and regulation. Preference will be given to individuals with experience of gene therapy/gene transfer technology and an indepth understanding of cytokine biology. Existing, ongoing independent research support is expected. Salary and academic rank are commensurate with experience. Applicants should send their C.V. and the names of three references by December 1, 1997 to: Dr. Jack Gauldie, Chairman, Department of Pathology, Room 2N16, McMaster University, 1200 Main Street West, Hamilton, Ontario L8N 3Z5. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. McMaster University is committed to Employment Equity and encourages applications from all qualified candidates, including aboriginal peoples, persons with disabilities, members of visible minorities and women.

MCMASTER UNIVERSITY — The Department of Pathology, McMaster University invites applicants for a full-time tenure track faculty position that is currently available. The successful candidate is required to have a background in the area of the pathobiology of airways, especially in asthma and fibrosis. Preference will be given to individuals with experience of gene therapy/gene transfer technology and an indepth understanding of cytokine biology. Existing, ongoing independent research support is expected. Salary and academic rank are commensurate with experience. Applicants should send their C.V. and the names of three references by December 1, 1997 to: Dr. Jack Gauldie, Chairman, Department of Pathology, Room 2N16, McMaster University, 1200 Main Street West, Hamilton, Ontario L8N 3Z5. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. McMaster University is committed to Employment Equity and encourages applications from all qualified candidates, including aboriginal peoples, persons with disabilities, members of visible minorities and women.

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PEDIATRICS

UNIVERSITY OF MANITOBA — Applications are invited for the position of Head of the Department of Pediatrics and Child Health, Faculty of Medicine, University of Manitoba, and its two major teaching hospitals, the Health Sciences Centre and the St. Boniface General Hospital for a five-year term commencing July 1, 1998 or as soon thereafter as possible. The appointment will be geographical full-time and tenured at the

Dean of the College of Science & Management

The University of Northern British Columbia is a new Canadian university which opened in 1994. UNBC is in its third year of operation with approximately 2,200 full-time equivalent undergraduate and graduate students in 40 academic programs. We have a regional mandate to serve the northern two thirds of the Province, with regional offices in Prince Rupert, Fort St. John and Quesnel, and a main campus located in Prince George

(population 75,000). We offer an unbeatable combination ... a strong mandate for growth ... a modern and comprehensive campus ... and a wonderful setting in the heart of B.C.

The University of Northern British Columbia recently completed a strategic planning process - "Planning for Growth". This plan will direct the future of UNBC for the next five years.

The College of Science and Management includes the Faculty of Science, the Faculty of Management and the Faculty of Natural Resources and Environmental Studies. Programs at both the undergraduate and graduate level within these Faculties include ... Biology (BSc, MSc) ... Business Administration (B Comm with five different majors within the degree) ... Chemistry (BSc) ... Computer Science (BSc) ... Environmental Studies (BA, BSc and MSc) ... Forestry (BSc, Natural Resource Management) ... Geography (BA, BSc) ... Math (BSc) ... Physics (BSc) ... and Resource Recreation/Tourism (BA). The College also offers an interdisciplinary Masters in Natural Resources & Environmental Studies, an MA (NRES) and a PhD (NRES).

The Dean of the College will be a senior academic with a PhD and will be tenurable in one of the disciplines within the College. Candidates will have records of significant scholarly achievement, demonstrated academic leadership ability and a commitment to the maintenance of the quality of both graduate and undergraduate programs. The candidates will also have strong administrative, budgeting, management and human resource skills.

UNBC is an institution with a strong commitment to interdisciplinary academic programs and interdisciplinary research. The successful candidate will show evidence of the background and leadership skills in interdisciplinary work necessary to strengthen the teaching and research agenda already established. The successful candidate should be appointable to the rank of Professor.

The preferred starting date is **July 1, 1998** and applications received prior to **January 31, 1998** will be given preference. Letters of application, accompanied by a curriculum vitae and the names of at least three references should be sent to: **Dr. Deborah Poff, Vice President Academic, University of Northern British Columbia, 3333 University Way, Prince George, BC V2N 4Z9. Fax (250) 960-5791.** Inquiries may be made to: **poff@unbc.ca**

UNBC
UNIVERSITY OF NORTHERN BRITISH COLUMBIA

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Northern British Columbia is committed to employment equity and encourages applications from women, aboriginal peoples, persons with disabilities and members of visible minorities.

TENURE-TRACK POSITION FACULTY OF COMMERCE & BUSINESS ADMINISTRATION

GOO Financial Economics (Real Estate Economics, Real Estate Finance)
ROO Urban Economics (Housing, Urban Economics)

A full-time tenure track position is available in the Urban Land Economics Division beginning July 1, 1998, in real estate finance, real estate economics, or housing economics. The appointee will be responsible for teaching in real estate finance and economics at the graduate and undergraduate levels. Applicants with a strong background in finance will be given priority. The applicant should show substantial promise of excellent scholarship and teaching, and have their Ph.D. completed or firmly expected by September 1988.

UBC's Faculty of Commerce and Business Administration offers degree programs at the undergraduate, master's and doctoral levels. Applicants should send a letter of application, a curriculum vitae, one or more research papers (published or in manuscript form), and contact information (address, phone number, email) of three referees to the ULE Division Chair by **December 15, 1997**. Applications after that time will also be considered provided that the position has not yet been filled. We will conduct interviews at the Allied Social Science Association meetings in Chicago, Jan. 3-5, 1998.

The position is subject to final budgetary approval. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply.

Contact: **Professor William Strange, Chair - ULE Division, Faculty of Commerce and Business Administration, 2053 Main Mall, University of British Columbia, Vancouver, BC, V6T 1Z2, Canada** Email: strange@commerce.ubc.ca

ANNONCES CLASSÉES

rank of Professor. Candidates should have a substantial record and achievement in Pediatrics and Child Health, and extensive experience in teaching and research as well as proven administrative experience. The Department is responsible for programs of education at the undergraduate and graduate levels. Candidates must be eligible for registration with the College of Physicians and Surgeons of Manitoba. Certification in Pediatrics by the Royal College of Physicians and Surgeons of Canada is required. The University offers good working conditions, a competitive salary and an attractive fringe benefit package. The University of Manitoba encourages applications from qualified women and men, including members of visible minorities, Aboriginal peoples, and persons with disabilities. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. Applications and nominations accompanied by a curriculum vitae and the names and addresses of three referees should be submitted no later than December 31, 1997 to: Dr. N.R. Anthonisen, Dean, Chair, Search Committee, Department of Pediatrics and Child Health, Faculty of Medicine, University of Manitoba, A101 - 753 McDermot Avenue, Winnipeg, Manitoba, R3E 0W3.

PHILOSOPHY

TRINITY WESTERN UNIVERSITY — Subject to budgetary approval, a tenure track position at the level of Assistant or Associate Professor of Philosophy is available. Doctorate required. Candidates should be competent to teach a range of courses including introductory courses, aesthetics, ethics, and philosophy of mind at the undergraduate level and a course in science and religion for the newly created interdisciplinary graduate program. Deadline for applications is February 15, 1998 for an August, 1998 appointment. Trinity Western University is a Christian liberal arts university, affiliated with the Evangelical Free Church of Canada. Candidates must be able to support the University's Statement of Faith and Community Standards. CV's, three letters of reference, and an example of scholarly work should be addressed to Dr. Phillip Wiebe, Dean, Faculty of Arts and Religious Studies, Trinity Western University, 7600 Glover Road, Langley, B.C. V2Y 1Y1 (604)888-7511; fax (604)513-2010; email pwiebe@twu.ca. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens or permanent residents.

ST. THOMAS MORE COLLEGE, a Catholic College federated with the University of Saskatchewan, is accepting applications for a tenure-stream position in Philosophy in the area of Modern Philosophy with an interest in contemporary. An interest and competence in interdisciplinary studies, aboriginal issues, and ethics as well as the capacity to take a more global perspective in philosophy, religion, and human thought are important elements for this position. Candidates should have a Ph.D. or equivalent and a demonstrated excellence in teaching. Rank and salary commensurate with qualifications and experience. The position is subject to budgetary approval. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents of Canada. Others are encouraged to apply but are not eligible for appointment until a Canadian search is completed and no appointment made. The appointment is effective July 1, 1998. Applicants should send a current curriculum vitae and three letters of reference by January 31, 1998 to Dr. Kevin Corrigan, Head, Department of Philosophy, St. Thomas More College, 1437 College Drive, Saskatoon, SK, S7N 0W6. Canada.

PHYSICAL MEDICINE & REHABILITATION

UNIVERSITY OF SASKATCHEWAN — Academic Physiatrist. The Department of Physical Medicine and Rehabilitation, College of Medicine, University of Saskatchewan, invites applications for a full-time tenure track academic position available 1st of July, 1998, due to faculty retirement. This Department is located in a new state-of-the-art facility, the Saskatoon City Hospital, and offers a full complement of general physiatry programs, and rehabilitation services. The Department is very involved with Undergraduate and Postgraduate education, including five residency positions, four full-time Academic positions and two physiatrists with part-time academic appointments. Qualifications include FRCPC certification in Physical Medicine and Rehabilitation and eligibility for specialty licence in Saskatchewan. This position has been cleared for advertising at the two-tier level. Applications are invited from qualified individuals regardless of their immigration status in Canada. The University is committed to Employment Equity. Members of designation groups (women, aboriginal people, people with disabilities and visible minorities) are encouraged to self-identify on their applications. Applications before the 30th of December, 1997 would be appreciated. A curriculum vitae, a letter indicating personal interests and the names of three referees should be sent to: Dr. Walter Hader, Head, Department of Physical Medicine and Rehabilitation, Saskatoon City Hospital, 701 Queen Street, Saskatoon, Saskatchewan S7K 0M7.

PHYSICS

UNIVERSITY OF TORONTO — The Department of Physics plans to make a tenure track appointment in High Energy Physics at the rank of Assistant Professor, subject to budgetary approval, with a starting date of July 1, 1998. We seek candidates with a PhD in Physics, proven or potential excellence in both research and teaching, whose research interests are in Theoretical Particle Physics. Salary will be commensurate with qualifications and experience. Applications, including a curriculum vitae and three letters of reference should be sent to: Professor Pekka Sinervo, Chair, Department of Physics, University of Toronto, 60 St. George Street, Toronto, Ontario M5S 1A7 Canada. The deadline for the receipt of applications and letters of recommendation is December 31, 1997. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Toronto is committed to employment equity and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

PHYSICS & ASTRONOMY

UNIVERSITY OF VICTORIA — The Department of Physics and Astronomy at University of Victoria expects to offer a total of two (and possibly, three) research associateships and/or postdoctoral fellowships of two to three years in duration, starting September 1998. Successful candidates are expected to pursue original research, under the general supervision of the faculty, in one or more of the following areas in gravitation and theoretical astrophysics: cosmology, early universe physics, quantum and classical black hole physics, high energy and black hole astrophysics, stellar structure and evolution, nuclear and relativistic astrophysics, gravitational lensing, galactic dynamics, and particle astrophysics. At present, the astrophysics group at University of Victoria consists of 10 faculty members (W. Israel, J. Navarro, A. Babul, D. Vandenberg, F.D.A. Hartwick, C. Pritchet, A. Gower, C. Scarfe, J. Tatum, and J. Burke) and 7 postdoctoral fellows/research associates. The group benefits from close relations with the staff and postdoctoral fellows at the nearby Dominion Astrophysical Observatory, as well as University of British Columbia in Vancouver and University of Washington in Seattle. Interested applicants should send their curriculum vitae, bibliography and statement of research interests arranged to have three letters of recommendations sent to Postdoctoral Fellowship Committee c/o Prof. Arif Babul, Dept. of Physics and Astronomy, University of Victoria, Elliot Building, 3800 Finnerty Road, Victoria BC V8R 5I6 Canada. Deadline for applications and letter of recommendations is November 20th 1997. Please do NOT send documents by fax or e-mail. Outstanding candidates may also be nominated for CITA National Fellowships. Candidates for the research associate positions should demonstrate proven ability to do innovative, outstanding astrophysics research in an independent capacity. All applicants for the research associateships will automatically be considered for the postdoctoral fellowships. In accordance with Canadian immigration requirements, priority for the research associate position(s) will be given to Canadian citizens and permanent residents.

THE UNIVERSITY OF BRITISH COLUMBIA — Department of Physics and Astronomy. Warren Chair. The Department of Physics & Astronomy invites applications or nominations for the Warren Chair. This is an endowed position honouring John B. Warren, a pioneer in Canadian nuclear and particle physics and the first Director of TRIUMF. The successful candidate will be appointed at the level of full professor with tenure. He or she should be a pre-eminent researcher and teacher of international stature with a distinguished record of achievement. The recipient will be expected to play a major leadership role in subatomic physics at UBC and TRIUMF. The suggested starting date is July 1, 1998. UBC hires on the basis of merit and is committed to employment equity. The University encourages all qualified persons to apply in accordance with Canadian immigration requirements; this advertisement is directed to Canadian citizens and permanent residents. Applications containing a curriculum vitae, a statement of future research plans and the names of three referees should be sent to: Prof. T. Tiedje, Head, Dept. of Physics and Astronomy, The University of British Columbia, 6224 Agricultural Road, Vancouver, BC, V6T 1Z1, Canada. More information on the research programs at UBC and TRIUMF can be found at the following websites: http://www.physics.ubc.ca and http://www.triumf.ca. The deadline for receipt of applications is Dec 31st, 1997.

PLANT SCIENCE

MCGILL UNIVERSITY — The Plant Science Department of McGill University's Faculty of Agricultural and Environmental Sciences invites applications for a tenure track position at the Assistant Professor level in pasture/forage management beginning June 1, 1998. The starting salary for this position is $43,000 CDN per year. Applicants should have a Ph.D. in plant or animal science with training and experience in pasture and/or forage management, livestock management, or low-input agricultural systems. Knowledge of the French language is an asset. The successful candidate will be expected to develop an active externally funded research program and to function as part of an existing interdisciplinary team. Responsibilities will include teaching at the undergraduate level in sustainable crop/animal systems, at the graduate level in the candidate's area of expertise, and participation in management of the field crops research facilities. Applicants should send a curriculum vitae, including a one-page statement of their teaching and research interests, and arrange for three letters of reference to be sent to: Dr. Danielle Donnelly, Plant Science Department, Macdonald Campus of McGill University, 21,111 Lakeshore Road, Ste. Anne de Bellevue, QC, Canada H9X 3V9. The closing date for applications is January 1, 1998. In accordance with Canadian immigration requirements, this advertisement is directed, in the first instance, to Canadian citizens and permanent residents of Canada. However, all qualified candidates are encouraged to apply. McGill University is committed to equity in employment.

POLITICAL SCIENCE

YORK UNIVERSITY — Faculty of Arts, Department of Political Science. Applications are invited for a tenure-track position at the Assistant Professor level in International Relations. This appointment is in the area of International Security Studies; an emphasis on Multilateralism would be an asset. Applicants are expected to demonstrate strength in International Relations theory. Appointment to commence July 1, 1998. Requirements: Completed PhD or equivalent. Candidates should demonstrate the promise of excellence in both teaching and research. Candidates must also demonstrate an immediate ability to teach and supervise graduate students. Salary: Commensurate with qualifications. Applicants should send a curriculum vitae, appropriate examples of their scholarship, and teaching evaluations, and arrange to have three letters of reference sent to Professor Stephen L. Newman, Department of Political Science, Rm.S669 Ross Bldg., York University, 4700 Keele Street, North York, Ontario M3J 1P3. This appointment is subject to budgetary approval. York University is implementing a policy of employment equity, including affirmative action for women faculty. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Deadline for Applications: January 5, 1998.

YORK UNIVERSITY — Faculty of Arts, Department of Political Science. Applications are invited for a tenure-track position at the advanced assistant professor level or tenured associate professor level in International Political Economy. Applicants are expected to demonstrate a general competence in International Political Economy. Appointment to commence July 1, 1998. Requirements: Completed PhD or equivalent. All candidates must have experience teaching and supervising graduate students. Candidates at the Assistant Professor level are expected to demonstrate the promise of excellence in research and scholarship as well as proven ability as a teacher. Candidates at the Associate Professor level should possess an international reputation reflecting a commitment to excellence in both teaching and research. Salary: Commensurate with qualifications. Applicants should send a curriculum vitae, appropriate examples of their scholarship, and teaching evaluations, and arrange to have three letters of reference sent to Professor Stephen L. Newman, Department of Political Science, Rm. S669 Ross Bldg., York University, 4700 Keele Street, North York, Ontario M3J 1P3. The appointment is subject to budgetary approval. York University is implementing a policy of employment equity, including affirmative action for women faculty. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. Deadline for Applications: January 5, 1998

UNIVERSITY OF TORONTO at Mississauga, Department of Political Science, invites applications for a tenure-track position in International Relations/International Political Economy at the rank of Assistant Professor, beginning July 1, 1998. Demonstrated excellence in research and teaching is sought. Candidates should have a PhD or be close to completion. Preference will be given to applicants with teaching and research interests in International Political Economy. The successful candidate will teach undergraduate and graduate courses. Salary will be commensurate with qualifications and experience. Applications, including a Curriculum Vitae, teaching portfolio or dossier, a statement of teaching specializations and research interests, and the names of three referees should be sent to Professor Robert C. Vipond, Chair, Department of Political Science, University of Toronto, 100 St. George Street, Toronto, Ontario M5S 3G3. Closing date of applications is January 16, 1998. In accordance with Canadian immigration requirements, this advertisement is directed to citizens or permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities.

THE UNIVERSITY OF NEW BRUNSWICK, Saint John Campus, Department of History and Politics invites applications for a tenure-track position in Political Science. The appointment will commence July 1, 1998, subject to budgetary approval. Candidates must have a doctorate. The successful candidate must be able to teach courses in Comparative Politics. Areas of research interest which would link to other disciplines in the University include public policy, international development, environmental politics, health studies, information technology and/or media studies. The Department is interested in applicants with a proven commitment to innovative undergraduate teaching, and to interdisciplinary teaching and research. Rank and salary will be commensurate with qualifications and experience. Applications, with curriculum vitae and the names and addresses of three referees, should be sent to Dr. Ken Coates, Dean of Arts, University of New Brunswick, P.O. Box 5050, Saint John, N.B. E2L 4L5, or faxed to 506-648-5611. Applications should be in by November 21, 1997. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. The University of New Brunswick is committed to the principle of employment equity.

THE UNIVERSITY OF WESTERN ONTARIO — The Department of Political Science invites applications for a tenured or tenure-track position, at the junior Associate or Assistant Professor level, to commence on July 1, 1998. The position is subject to budgetary approval. Applicants will have a PhD, with an excellent record in research and evidence of or potential for outstanding teaching. Applications are invited from specialists in Political Philosophy. The approach to political theory is open, but the successful candidate will have a demonstrated interest in applying political theory to contemporary issues — to public policy, political economy, constitutional politics, social-science methodology, or European politics, for example. As well, the Department intends to appoint a person with a proven commitment to innovative undergraduate teaching, and to interdisciplinary teaching and research. The appointment will be made at the rank of Associate or Assistant Professor. Salary is negotiable. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian Citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals, including women, members of visible minorities, aboriginal persons, and persons with disabilities. Applications, together with a c.v. and three letters of reference, should be directed to: Dr. Robert Young, Chair, Department of Political Science, The University of Western Ontario, Social Science Centre, London, ON N6A 5C2. Deadline for receipt of applications: January 15, 1998.

POLITICAL SCIENCE/HISTORY

THE UNIVERSITY OF WESTERN ONTARIO — The Department of Political Science and History at the University of Western Ontario invite applications for a tenure-track position at the Assistant Professor level in the politics and history of Modern Russia/Eastern Europe, beginning July 1, 1998. Since this is a joint appointment, the successful candidate will be expected to teach and supervise graduate students in both departments. Interdisciplinary experience would therefore be an asset. A PhD is required for this position. Teaching experience and publications are desirable. Candidates should send a letter of application, a curriculum vitae and three letters of reference to: R.A. Young, Chair, Department of Political Science, The University of Western Ontario, Social Science Centre, Room 4154, London, ON N6A 5C2. Tel: (519) 661-4185, Fax: (519) 661-3904. Deadline for application is January 9, 1998. The position is subject to budgetary approval. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

PSYCHOLOGY

SAINT MARY'S UNIVERSITY — Department of Psychology Applications are invited for tenure track and limited term appointments at he Assistant Professor level starting September 1, 1998. A PhD in psychology is required. We seek individuals with teaching and research skills in applied psychology. An ability and willingness to teach courses at the introductory level as well as in psychological statistics and research methods is required. The successful applicants will be expected to develop an active program of scholarly investigation and to contribute in teaching and research to the Department's graduate program. The Department has a major and honors curriculum and offers a M.Sc. degree in applied psychology. Candidates should present evidence, commensurate with experience, of research excellence, scholarly productivity, and preparation for teaching and research supervision at both the graduate and undergraduate levels. Applicants should submit a curriculum vitae, copies of reprints, a letter describing teaching and research interests and three letters of reference (sent directly by referees) to Dr. Vic Catano, Department of Psychology, Saint Mary's University, Halifax, Nova Scotia, B3H 3C3. Completed applications must be received by December 1, 1997. This advertisement is directed to Canadian citizens and permanent residents Saint Mary's University is committed to the principles of Employment Equity. Visit Saint Mary's University website at http://www.stmarys.ca.

WILFRID LAURIER UNIVERSITY — The Psychology Department at Wilfrid Laurier University anticipates hiring for two faculty positions, pending budgetary aposoval, with both positions beginning July 1, 1998. One tenure-track position will be in the area of community psychology, with a focus on the psychology of women, women's issues, and community mental health. A second tenure-track position, with rank open, will be in the area of physiological/neuroscience. Successful applicants will have a PhD, a commitment to quality teaching, and a strong and active program of research. Applications should be received no later than Jan. 1, 1998. Applicants should send a curriculum vitae, copies of recent publications, a statement of teaching and research interests, and three letters of reference to Dr. Keith Hanson, Chair, Department of Psychology, Wilfrid Laurier University, Waterloo, Ontario, Canada N2L 3C5 (email: khorton@mach2.wlu.ca). This advertisement is directed in the first instance to Canadian citizens and permanent residents. The University is committed to employment equity and invites applications from women, visible minorities, aboriginal persons, and persons with disabilities.

UNIVERSITY OF MANITOBA — Clinical Psychologist. The Department of Clinical Health Psychology in the Faculty of Medicine of the University of Manitoba invites applications for a contingent geographic full-time (GFT) Clinical Psychologist. The successful applicant will be expected to provide a full range of psychological treatment and assessment services to adults as well as consultation to multi-disciplinary teams in a variety of health and mental health programmes at the Health Sciences Centre in Winnipeg. Clinical research, teaching and supervision of psychology interns in our CPA and APA accredited internship programme are also expected. Salary and rank will be commensurate with qualifications and experience. Candidates must have a PhD in Clinical Psychology from a CPA/APA accredited Clinical Psychology training programme, have completed a CPA/APA accredited internship, and must be eligible for registration as a Psychologist in Manitoba. The University encourages applications from qualified women and men, including members of visible minorities, Aboriginal people, and persons with disabilities. In accordance with Canadian Immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Closing date for receipt of applications is December 1, 1997. Interested persons should apply in writing, including a curriculum vitae, and have three referees familiar with their work send letters supporting their application to Dr. John Annett, Professor and Head, Department of Clinical Health Psychology, Faculty of Medicine, University of Manitoba, 771 Bannatyne Avenue, Room PZ 420, Winnipeg, Manitoba, Canada R3E 3N4

UNIVERSITY OF MANITOBA — Clinical Neuropsychologist. The Department of Clinical Health Psychology in the Faculty of Medicine of the University of Manitoba invites applications for a contingent geographic full-time (GTF) Clinical Neuropsychologist. The successful applicant will be expected to provide a full range of psychological treatment and assessment services to adults as well as consultation to multidisciplinary teams in a variety of health and rehabilitation programmes at the Health Sciences Centre in Winnipeg. Clinical research, teaching and supervision of psychology interns in our CPA and APA accredited internship programme are also expected. Salary and rank will be commensurate with qualifications and experience. Candidates must have a PhD in Clinical Psychology from a CPA/APA

HEAD
DEPARTMENT OF PHILOSOPHY

The Faculty of Arts at the University of British Columbia invites applications for the position of Head of the Department of Philosophy. The appointment, subject to budgetary approval, will commence on July 1, 1998.

The Department of Philosophy offers degree programmes at the BA, MA and PhD levels. In recent years, 45-55 majors and 35-40 graduate students have been in the programme at any given time. The Department has 11 permanent faculty including 2 faculty members cross-appointed to the Centre for Applied Ethics and several part-time sessional instructors. Areas of current disciplinary strength include Philosophy and History of Science, Logic and Philosophy of Mathematics, Ethical Theory and Applied Ethics, and the History of Philosophy.

We are seeking a senior scholar who will lead the Department for a five-year term, renewable for a second five-year term pending a satisfactory review. Salary will be commensurate with experience. The successful applicant will have an outstanding record of scholarly achievement, a record of successful teaching and demonstrated leadership skills. The Faculty of Arts is currently engaging in strategic planning and seeks applicants who take creative approaches to curriculum and programme delivery, are able to work efficiently and effectively both within the Department of Philosophy, and within the larger university, including interdisciplinary contexts.

Letters of application addressing the qualifications for the position, a complete resume, and names, titles, addresses and telephone numbers of four references should be sent by **January 2, 1998** to: **Dr. Shirley Neuman, Dean of Arts, University of British Columbia, Vancouver, BC V6T 1Z1**

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. UBC hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply.

Queen's University at Kingston

Tenure-Track Positions in the Faculty of Education

The Faculty of Education, Queen's University, invites applications for three tenure-track positions. The positions normally will be at the rank of Assistant Professor and will begin 1 July 1998.

Elementary Mathematics Education

Applicants should have a strong base in mathematics education at the elementary level and a record of research in topics concerning mathematics and children. Successful elementary school teaching experience and knowledge of the Canadian school system are important, as is an ability to provide curriculum leadership.

Elementary Science Education

Applicants should have a strong base in science education at the elementary level and a record of research in topics concerning science and children. Successful elementary school teaching experience and knowledge of the Canadian school system are important, as is an ability to provide curriculum leadership

Cognitive Studies in Education

Applicants should have a strong base in applied cognitive studies and an established record of research in the application of cognitive research to educational issues as in the analysis of students' learning, of individual differences, of learning difficulties, and of techniques to enhance development. Successful teaching experience in schools is an asset.

Requirements for all positions include a completed doctorate in Education or related field, and appropriate research experience with peer-reviewed publications. Applicants should also possess expertise in a second area of education including, but not limited to, the arts, career counselling and guidance, curriculum integration, educational technology, environmental education, and quantitative research methods.

Responsibilities of each position may include: teaching in the new experiential teacher education program, and in the masters and proposed doctoral programs of the Faculty; supervising pre service and graduate students; and conducting research and disseminating findings.

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Queen's University has an employment equity program and is committed to diversity in the workplace. Queen's University welcomes applications from all qualified women and men, including Aboriginal people, people with disabilities, visible minorities, gay men, and lesbians.

Appointments are subject to final budgetary approval. Further information may be obtained from the Office of the Dean, or from the web address http://www.educ.queensu.ca/

Applicants should forward a letter of application, a curriculum vitae, one sample of recent scholarly work, and the names and addresses of at least three persons to act as referees by *1 December 1997* to: *Rena Upitis, Dean, Faculty of Education, Queen's University, Kingston, Ontario K7L 3N6; Phone: (613) 545-6210; Fax: (613) 545-6307.*

CLASSIFIEDS

accredited Clinical Psychology training programme, have completed a CPA/APA accredited internship, have training and experience in neuropsychology and rehabilitation psychology and must be eligible for registration as a Psychologist in Manitoba. The University encourages applications from qualified women and men, including members of visible minorities, Aboriginal people, and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Closing date for receipt of application is December 1, 1997. Interested persons should apply in writing, including a curriculum vitae, and have three referees familiar with the work send letters supporting their application to: Dr. John Arnett, Professor and Head, Department of Clinical Health Psychology, Faculty of Medicine, University of Manitoba, 771 Bannatyne Avenue, Room PZ 420, Winnipeg, Manitoba, Canada R3E 3N4.

UNIVERSITY OF TORONTO at Mississauga, Department of Psychology, invites applications for a tenure-track position (beginning July, 1998), at the rank of Assistant Professor in Behavioral Neuroscience/Neurobiology with an emphasis on Animal Work in Development or Cognition. The candidate must have a PhD, a strong research record, and a commitment to excellence in teaching. Salary will be commensurate with qualifications and experience. A curriculum vitae, teaching portfolio and three letters of recommendation should be sent to Prof. Thomas Alloway, Department of Psychology, University of Toronto at Mississauga, Mississauga, Ontario, Canada, L5L 1C6. Application deadline is December 1st, 1997.

In accordance with Canadian immigration requirements, this advertisement is directed to citizens or permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities.

THE UNIVERSITY OF BRITISH COLUMBIA — The Department of Counselling Psychology in the Faculty of Education at the University of British Columbia seeks applications for a tenure-track position at the rank of Assistant Professor with a specialization in Child/Elementary School Counselling. Candidates must have a doctorate in counselling psychology, research experience and potential for making significant contributions in research, ability to teach in one other program in the Counselling Psychology Department, and be registered or willingness to pursue registration as psychologist in British Columbia. Experience as a school counsellor is an asset. Responsibilities will include teaching child/elementary school counselling and related counselling courses at the graduate level, maintaining an ongoing program of research and scholarly activities, supervising clinical and practicum courses, supervising student research at the master's and doctoral level, and being involved in the undergraduate teather education program. Appointment is to begin July 1, 1998. The application review process will begin Jan. 1, 1998, until position filled. The Department of Counselling Psychology offers CACREP-accredited programs at the master's level in School Counselling, Student Affairs Practice in Higher Education — College Counselling Emphasis, and Community Counselling. It also offers a PhD program in Counselling Psychology and Diploma in Education (Guidance Services) at the undergraduate level. The Department currently has 11 tenure track faculty members, 1 full-time visiting professor, 3 adjunct faculty members and 10 sessional instructors. There are 250 students enrolled in master's and doctoral programs in the Department. The Department subscribes to the scientist-practitioner approach to the education of counsellors and psychologists. A letter of application, curriculum vitae, copies of recent publications, and the names, addresses, and telephone numbers of three referees should be sent to Dr. Richard A. Young, Head, Dept. of Counselling Psychology, Faculty of Education, University of British Columbia, 2125 Main Mall, Vancouver, B.C. V6T 1Z4. Please ask your referees to forward a letter directly on your behalf inquiries about the position may be directed to Dr. Young at (604) 822-6380, fax (604) 822-2328, or by e-mail at richard.young@ubc.ca>. The position is subject to budgetary approval. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of British Columbia hires on the basis of merit and is committed to employment equity. We encourage all qualified persons to apply.

THE UNIVERSITY OF WESTERN ONTARIO, Department of Psychology, invites applications for a probationary (tenure-track) position at the Associate or Assistant Professor level. Individuals with an active research program in any area of Clinical Neuropsychology are invited to apply. Duties will include graduate student supervision, graduate and undergraduate teaching and responsibility for clinical supervision. Western's Clinical Neuropsychology program has a strong biological orientation. Applicants should submit a vita, copies of representative publications and arrange to have three letters of recommendation sent to Dr. Clive Seligman, Chair, Department of Psychology, The University of Western Ontario, London, Ontario, Canada N6A 5C2 by January 1, 1998. This position is subject to budgetary approval. The scheduled starting date is July 1, 1998. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian Citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons, and persons with disabilities.

RADIOLOGY

UNIVERSITY OF SASKATCHEWAN — The Academic Department of Medical Imaging, in conjunction with the College of Medicine, the University of Saskatchewan, and the Saskatoon District Health Board invite applications for two available faculty positions. Duties within the Department are negotiable. Applicants with additional experience or training in MRI, Cross-Sectional Imaging, Angiography and Interventional, and Chest Radiology will be considered. Applicants must be willing to teach at an undergraduate and graduate level and be interested in research activities. Certification, or a letter of eligibility for certification with the Royal College of Physicians and Surgeons of Canada is a prerequisite. This position has been cleared for advertising at the two-tier level. Canadian citizens are preferred but applications from all qualified individuals will be considered. The University of Saskatchewan is committed to employment equity. Members of designated groups (aboriginal people, people with disabilities, and visible minorities) are encouraged to identify themselves. The positions are available immediately. Locum appointments are also available. Please forward your application, curriculum vitae, and the names of three references to: Dr. Brent Burbridge, Academic Head, Department of Medical Imaging, Royal University Hospital, 103 Hospital Drive, Saskatoon, Sask., Canada S7N 0W8; Facsimile 306-655-2370 or; E-mail burbridb@duke.usask.ca.

RELIGION & CULTURE

WILFRID LAURIER UNIVERSITY — The Department of Religion and Culture invites applications for an appointment (subject to budgetary approval) at the assistant professor rank, commencing July 1, 1998. Candidates should have a specialization in Judaism and/or Islam, be qualified in the academic study of religion, and be able to support the development of the Department's graduate and undergraduate programmes. Preference will be given to persons conversant with the origins, historical developments, and the contemporary manifestations of one or both of these traditions, and who also contribute to the understanding of religious diversity. Applicants need to show evidence or promise of teaching ability, and of research and publication of sufficient quality to warrant appointment to the Graduate Faculty. The candidate must have a completed PhD by the time of appointment. Applicants should send a letter of application, curriculum vitae, and teaching dossier (e.g., course evaluations, course outlines). Lastly, fully and candidly assessing the applicant should be sent directly from three referees. Applications should be sent to Christopher Ross, Chair of the Search Committee, Department of Religion & Culture, Wilfrid Laurier University, Waterloo, Ontario, Canada N2L 3C5. Questions may be directed to Christopher Ross (519-884-0710, ext.3679, emailcross@mach1.wlu.ca). Information about the Department can be found at the Religion and Culture website (http://www.wlu.ca/~wwwrandu/). The deadline for receipt of all materials is December 15, 1997. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Wilfrid Laurier University is committed to employment equity and encourages applications from all qualified persons.

RELIGIOUS STUDIES

ST. THOMAS MORE COLLEGE, a Catholic College federated with the University of Saskatchewan, is presently accepting applications for a tenure-stream position in Religious Studies in the area of Bible and Biblical Literature. Candidates should have a Ph.D. or equivalent (or one near at hand) and a demonstrated excellence in teaching. The successful candidate will be expected to develop the teaching area with specific attention to the interdisciplinary study of the Bible. Teaching load may include introductory courses in Christianity and/or Judaism. The position is subject to budgetary approval. In accordance with Canadian immigration requirements, this advertisement is directed in the first instance to Canadian citizens and permanent residents of Canada. Others are encouraged to apply but are not eligible for appointment until a Canadian search is completed and no appointment made. The appointment is effective July 1, 1998. Applicants should send a current curriculum vitae and three letters of reference by January 31, 1998 to Dr. Kevin Corrigan, Acting Head, Department of Religious Studies, St. Thomas More College, 1437 College Drive, Saskatoon, SK, S7N 0W6. Canada.

RUSSIAN & EAST EUROPEAN HISTORY

THE UNIVERSITY OF CALGARY invites applications for a tenure-track, entry-level assistant professorship in Russian and Eastern European history, effective July 1, 1998. The position is based in the History Department and will be a joint appointment: 2/3 in the Faculty of Social Sciences and 1/3 in the Faculty of General Studies. A PhD in history plus publications, a strong teaching record, experience or interest in interdisciplinary research and instruction, and/or training in a second disciplinary field are required. We expect that the incumbent will eventually direct the Central and East European Studies minor programme in General Studies. The position is open to any area of specialization, with preference given to candidates working in the late 19th and early 20th centuries, including cultural traditions and with a strong focus on contemporary issues. Salary commensurate with qualifications. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary is committed to Employment Equity. Please send applications, with c.v. and three letters of recommendation, by December 15, 1997, to Dr. S.J. Randall, Dean, Faculty of Social Sciences, The University of Calgary, 2500 University Drive N.W., Calgary, Alberta, Canada, T2N 1N4.

SCIENCE

MCMASTER UNIVERSITY — Faculty of Engineering. McMaster University is forming a new department, Computer Science and Software Systems Engineering, in the Faculty of Engineering. Incorporating members of the Department of Computer Science and Systems (which will cease to exist in the future), and some members of the Electrical and Computer Engineering Department, the new department will offer an undergraduate programme in Software Systems Engineering, in addition to the present programme in Computer Science offered through the Faculty of Science. The new programme is designed with the philosophy that Software Systems Engineering is a new specialty within engineering and it is our intention to have it accredited by the Canadian Engineering Accreditation Board (CEAB). In connection with this new initiative we have openings for one senior tenured and several junior tenure track faculty members interested in any aspect of Computer System Design commencing in January or July, 1998. Applicants should have a PhD in either computer engineering, electrical engineering, computer science or mathematics and have experience either in industry or teaching appropriate to the level of appointment. The successful applicants must be able to develop graduate and undergraduate courses in software design, real-time systems, information systems, performance prediction, and other aspects of computer system design. The successful candidate for the senior appointment will be expected to play a major leadership role in the development of the new department. All applicants must have a strong and demonstrated commitment to research in a university environment and will have normal faculty administrative and committee responsibilities. Ability to be registered as a Professional Engineer in the Province of Ontario or become registered within three years of his/her appointment will be considered an advantage. McMaster University has an employment equity program and encourages applications from all qualified candidates, including women, aboriginal people, persons with disabilities and visible minorities. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens or permanent residents of Canada. The position is subject to final budgetary approval; salary is commensurate with experience and qualifications. Applications, including a curriculum vitae, a statement detailing research and teaching interests, and the names of five referees should be sent to: Dr. M. Shoukri, Dean, Faculty of Engineering, McMaster University, 1280 Main St. West, Hamilton, Ontario, Canada L8S 4L7. Applications will be received until the position is filled.

SOCIOLOGY

ST. THOMAS MORE COLLEGE — The Department of Sociology at St. Thomas More College, a Catholic college federated with the University of Saskatchewan, invites applications for a term appointment in Sociology at the assistant professor level commencing July 1, 1998. (Subject to budgetary approval). Candidates should possess a Doctoral degree in Sociology by the time of appointment. The Department's chief areas of interest are family and religion, but applications from candidates specializing in theory, social psychology, and communications will also be given serious consideration. Salary will be commensurate with qualifications and experience. Applicants should submit a letter of application, curriculum vitae, and any other supporting materials and arrange for three letters of reference to: Professor Ron Griffin, Chair, Department of Sociology, St. Thomas More College, 1437 College Drive, Saskatoon, Saskatchewan, S7N 0W6. Closing date for applications is January 31, 1998. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

MCGILL UNIVERSITY — Sociology. Applications are invited for a tenure track appointment, at the assistant professor level, commencing September, 1998. Minimum starting salary is $43,000 per annum. Hiring priority will be given to those candidates with substantive specialization in medical sociology or gender, although outstanding applicants with other specializations will be considered. Ability to teach methods, qualitative and quantitative, is expected. Knowledge of French an asset. McGill University is committed to equity in employment. In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. Interested persons should write to: The Chair, Appointments Committee, Department of Sociology, Leacock 712, 855 Sherbrooke St. W., Montreal, Quebec, H3A 2T7, enclosing a curriculum vitae, and a sample of work. Candidates should have three referees write on their behalf. Applications should be received by January 15th, 1998.

QUEEN'S UNIVERSITY — The Department of Sociology at Queen's University is seeking qualified applicants to fill two tenure-track appointments, one of open rank and the other, subject to budgetary approval, at the assistant professor rank, commencing July 1, 1998. The former position has a primary focus in quantitative sociological research methods, including statistics, and applicants should indicate the rank for which they would like to be considered. Applicants to either position must offer expertise in one or more of the following areas: sociological theory (feminist, classical, contemporary), sociological studies, Canadian society. Candidates should possess a PhD degree in Sociology. Salary is commensurate with experience and qualifications. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Queen's University is committed to employment equity and welcomes applications from all qualified women and men, including visible minorities, aboriginal people, persons with disabilities, gay men and lesbians. Applications, including vitae and names of three referees, should be sent to Dr. Robert M. Pike, Chairperson, Appointments Committee, Department of Sociology, Queen's University, Kingston, Ontario, K7L 3N6, Canada. The closing date for receipt of applications is January 30, 1998. The Department offers B.A., M.A. and PhD degrees in Sociology. Further information about the Department and University is available on the World Wide Web at http://info.queensu.ca.

THE UNIVERSITY OF WESTERN ONTARIO — The Department of Sociology, The University Western Ontario, invites applications for a tenure-track position at the rank of Assistant/Associate Professor commencing July 1, 1998 or when the position is filled. Candidates must have a PhD. The position is in the area of Social Class and Social Change. Specialties may include, but are not restricted to, sociology of work, labour markets, organizations, and social change and development inclusive of historical sociology. A strong commitment to research and teaching in at least one of the areas is essential. A willingness to teach introductory sociology would be an asset. The Department has a PhD program with emphasis in Social Class and Social Change, Social Demography, and Health and Aging. The closing date for applications is December 31, 1997. Interested candidates should send their curriculum vitae and names of three references to: Professor Jerry White, Chair, Recruitment Committee, Department of Sociology, The University of Western Ontario, London, Ontario, Canada, N6A 5C2. Positions are subject to budgetary approval. In accordance with Canadian Immigration requirements, the advertisement is directed to Canadian Citizens and Permanent Residents of Canada. The University of Western Ontario is committed to employment equity, welcomes diversity in the workplace and encourages applications from all qualified individuals including women, members of visible minorities, aboriginal persons and persons with disabilities.

STATISTICS

YORK UNIVERSITY — Faculty of Arts, Department of Mathematics and Statistics. Position in Statistics Applications are invited for a tenure-track appointment in statistics at the Assistant Professor level in the Department of Mathematics and Statistics, to commence 1 July, 1998, subject to budgetary approval. The successful candidate will be expected to have demonstrated research excellence in statistics, and must have a PhD and evidence of superior teaching ability. The decision process will begin on 15 January, 1998. Applicants should send resumes and arrange for at least three letters of recommendation to be sent directly to: George O'Brien, Chair, Department of Mathematics and Statistics, York University, 4700 Keele Street, North York, Ontario, Canada M3J 1P3; fax: (416) 736-5757; e-mail: chair@mathstat.yorku.ca. York is implementing a policy of employment equity, including affirmative action for women faculty. The Department encourages applications from all minority groups. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents.

SIMON FRASER UNIVERSITY — The Department of Mathematics and Statistics of Simon Fraser University invites applications for a tenure track position in Statstics at the rank of Assistant Professor. Applicants are expected to have completed a Ph.D. degree at the time of appointment and to be able to demonstrate strong potential in research. Skill and experience in applications would be an asset. A strong commitment to teaching is essential. Information on the statistics group in the department can be found on the World Wide Web site, http://www.math.sfu.ca/statistat/home.html. The position, which is subject to budgetary aporoval, has an intended starting date of September 1, 1998. Interested applicants should, before 31 December 1997, submit an up-to-date curriculum vitae and descriptive statements on research plans and teaching activities to: Dr. J. L. Beggren, Chair, Statistics Search Committee, Department of Mathematics and Statistics, Simon Fraser University, Burnaby, BC V5A 1S6 Canada. Please arrange for three letters of reference to be sent directly from the referees. Simon Fraser University is committed to the principle of equity in employment and offers equal employment opportunities to all qualified applicants. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada

UNIVERSITY OF TORONTO at Mississauga — Department of Statistics, University of Toronto invites applications for a tenure-stream appointment at the Assistant Professor level starting July 1, 1998. Duties will include research, undergraduate and graduate teathing and involvement in graduate supervision. Excellence in research, a strong interest in teaching applied statistics and a doctoral degree are required. The successful candidate will be based at the Erindale College, University of Toronto at Mississuga, in a beautiful wooded setting on the outskirts of the city. Undergraduate teaching will be on the Erindale campus, while graduate teaching will take place primarily on the main campus in downtown Toronto. The candidate is expected to pursue opportunities for collaboration with scientists from other disciplines on the Erindale Campus, while maintaining a vigorous program of research. Letters of application with curriculum vitae and three letters of reference should be sent to Professor Nancy Reid, Chair, Department of Statistics, University of Toronto, Toronto, Ontario, Canada M5S 3G3 by January 15, 1998. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities. In accordance with Canadian Immigration requirements this advertisement is directed to Canadian citizens and permanent residents.

CAUT ACPPU

BULLETIN

PUBLISHER'S STATEMENT
DÉCLARATION DE L'ÉDITEUR

The publisher will not accept advertisements of academic positions restricting applications on grounds of race, national origin, religion, colour, sex, age, marital status, family status, ethnicity, handicap, sexual preference, social origin, or political beliefs or affiliation. CAUT expects that all positions advertised in the *Bulletin* are open to both men and women. Advertisements using gender specific language will not be accepted except where the language has been mandated by Human rights legislation. Where any bona fide reasons for exemption from general policy stated above exist, it is the responsibility of the institution on whose behalf is to place a restrictive advertisement to provide the Editor of the *Bulletin* with a statement as to these reasons.

Many Canadian universities are signatories to the Federal Contractors Program. The program requires that suppliers of goods and services to the federal government who employ 100 persons or more and who want to bid on federal contracts (including research contracts) of $200,000 or more must commit themselves to implementing employment equity as a condition of then bid. This commitment requires the identification and removal of artificial barriers to the selection, hiring, promotion and training of women, aboriginal peoples, persons with disabilities and visible minorities. As a result, applications for some positions advertised in the CAUT *Bulletin* may be asked to provide information of a confidential nature.

As a service to CAUT members interected in positions available in other countries, the *Bulletin* accepts advertisements for these positions. The view of academic freedom and the extent to which it is protected in other countries may vary. Except in the case of the United States, where the Association of American University Professors (AAUP) investigates alleged violations of academic freedom, there is no method by which we can provide any verifiable information concerning the state of academic freedom at universities outside of Canada. CAUT publishes a list of universities censured by AAUP twice a year. Further information about those censures can be obtained by writing to AAUP, Suite 500, 1012 - 14th, St N.W., Washington, DC 20005; tel: 202-737-5900

L'éditeur n'accepte pas d'annonces de postes d'administration ne d'enseignement qui restreignent les candidatures pour des raisons de race, d'origine raciale, de religion, de couleur, de sexe, d'âge, d'état civil, de situation familiale, ethniques, d'handicap, d'orientation sexuelle, d'origine sociale ou de convictions ou d'attaches politiques, générales. L'ACPPU s'attend à ce que tous les postes annonces dans le *Bulletin* soient offerts aux hommes et aux femmes. Les annonces utilisant un langage sexiste ne sont pas acceptées à moins que la loi sur les droits de la personne ne le permettre. Il incombe à l'établissement qui a l'intention de faire paraitre une annonce restrictive de fournir à la rédactrice du *Bulletin* une declaration énoncant ces raisons.

Beaucoup d'universités canadiennes se sont jointes au Programme de contrats fédéraux. Le programme exige que les fournisseurs de biens et services du gouvernement fédéral qui emploient au moins 100 personnes et veulent soumlissonner des contrats fédéraux (y compris des contrats de recherche) d'au moins 200 000 $ doivent engager, comme condition de la soumission, à appliquer l'équité dans l'emploi. Cet engagement exige que l'on supprime tout obstacle artificiel à la sélection, à l'embauche, à l'avancement et à la formation des femmes, des autochtones, des personnes handicapées et des minorités visibles. A cette fin, on pourra demander aux candidat(e)s à certains postes annoncés dans le *Bulletin* de fournir des renseignements à caractère confidentiel.

Le *Bulletin* accepte les offres d'emploi à l'extérieur du Canada à titre de service pour les membres de l'ACPPU qui pourraient être intéressés. La perception de la liberté universitaire et son degré de protection peut varier d'un pays à l'autre. A l'exception des États-Unis, ou l'Association of American University Professors enquête sur des prétendues violations de la liberté universitaire, il n'existe aucune méthode nous permettant de vérifier la situation de la liberté universitaire dans les universités étrangères. Deux fois par année, l'ACPPU publie une liste d'universités faisant l'objet de censure par l'AAUP. Pour obtenir des renseignements supplémentaires sur ces censures, prière d'écrire à l'AAUP, suite 500, 1012 14th. St. N.W., Washington, DC 20005, tél: (202)737-5900.

ADVERTISING RATES

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[1] Agency commission 15% (camera-ready artwork required)

[2] These prices indicate a colour advertising surcharge based on number of colours used per page or fraction of page. Separations to be supplied by advertiser.

ADVERTISING DEADLINES

The *Bulletin* is published 10 times during the academic year: 1st week of each month September through June.

JAN	FEB	MAR
CLASSIFIED Dec 5/97 • 12 pm	CLASSIFIED Jan 9/98 • 12 pm	CLASSIFIED Feb 6/98 • 12 pm
DISPLAY Dec 12/97 • 12 pm	DISPLAY Jan 16/98 • 12 pm	DISPLAY Feb 13/98 • 12 pm

TARIFS DE PUBLICITÉ

SECTION DES ANNONCES CLASSÉES

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[1] Commission de 15 % des agences (illustrations prêter à photographier)

[2] Ces tarifs comportent un supplément pour la publicité en couleur selon le nombre de couleurs utilisées par page ou par partie de page. L'annonceur doit fournir la sélection des couleurs.

DATES LIMITES

Le *Bulletin* est publié dix fois pendant l'année universitaire, soit la première semaine de chaque mois, de septembre à juin.

JAN	FÉV	MAR
PETITES ANNONCES 5 déc/97 • 12h00	PETITES ANNONCES 9 jan/98 • 12h00	PETITES ANNONCES 6 fév/98 • 12h00
GRANDES ANNONCES 12 déc/97 • 12h00	GRANDES ANNONCES 16 jan/98 • 12h00	GRANDES ANNONCES 13 fév/98 • 12h00

ANNONCES CLASSÉES

STATISTICS & ACTUARIAL SCIENCE

UNIVERSITY OF WATERLOO — The Department of Statistics and Actuarial Science invites applications for a tenure track position in Statistics at the Assistant Professor level. Department interests cover a wide range of topics in inference, statistical methods and theory, and areas of application. Applications are invited particularly in the areas of stochastic models in finance, and computer intensive statistical methods. Applicants must have a PhD with research in statistics or probability, and must have demonstrated ability in research, and good teaching and communication skills. Duties include undergraduate and graduate teaching, and development of an independent research program. Salary will be commensurate with qualifications and experience. This appointment is subject to the availability of funds. The appointment is effective May 1, 1998 or later. The closing date for applications is December 31, 1997. Please submit a curriculum vitae and arrange for three letters of reference to be sent to: Professor M.E. Thompson, Chair, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals including women, members of visible minorities, native peoples, and persons with disabilities.

UNIVERSITY OF WATERLOO — The Department of Statistics and Actuarial Science invites applications for one or more Post-Doctoral positions in Statistics. Successful applicants will work with members of the Department on research problems in statistics. Candidates with an interest in any area of statistics, biostatistics, industrial statistics or statistical computing are encouraged to apply. Candidates must have completed all requirements for a PhD in Statistics or closely related area at the time the appointment begins. Appointment may begin July 1, 1998 or later. The closing date for applications is February 28, 1998. Please submit a curriculum vitae and arrange for three letters of reference to be sent to: Professor M.E. Thompson, Chair, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1. These appointments are subject to the availability of funds. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals including women, members of visible minorities, native peoples, and persons with disabilities.

UNIVERSITY OF WATERLOO — Statistics and Actuarial Science. Applications are invited for a tenure track of three-year definite term position in Actuarial Science at the Assistant or Associate Professor level. Applicants must have a PhD with research in an area of the mathematical sciences, and interests closely related to actuarial science; professional qualifications and experience area an asset. Department interests in actuarial science cover a wide range of topics in statistical and probabilistic modelling in insurance, risk theory and stochastic models in finance. Applicants must have proven ability in, or potential for research, and good teaching and communication skills. Duties include undergraduate and graduate teaching, and development of an independent research program. Salary commensurate with qualifications and experience. This appointment is subject to the availability of funds. The appointment effective July 1, 1998 or later. The closing date for applications is January 31, 1998. Please submit a curriculum vitae and arrange for three letters of reference to be sent to: Professor M.E. Thompson, Chair, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals including women, members of visible minorities, native peoples, and persons with disabilities.

UNIVERSITY OF WATERLOO — Statistics and Actuarial Science Applications are invited for a visiting appointment in Actuarial Science of up to one year, to begin May 1, 1998 or later. Applicants must have a PhD in an area of the mathematical sciences, with interests closely related to actuarial science, or substantial relevant professional experience. Department interests in actuarial science cover a wide range of topics in statistical and probabilistic modelling in insurance, risk theory and stochastic models in finance. Duties include undergraduate and/or graduate teaching, and participation in the research activities of the department. The closing date for applications is December 31, 1997. Please submit a curriculum vitae and the names of three references to: Professor M.E. Thompson, Chair, Department of Statistics and Actuarial Science, University of Waterloo, Waterloo, Ontario, Canada N2L 3G1. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. The University of Waterloo encourages applications from all qualified individuals including women, members of visible minorities, native peoples, and persons with disabilities.

THEOLOGY

TRINITY WESTERN SEMINARY — Old Testament Studies Associated Canadian Theological Schools/Trinity Western Seminary seeks an associate or full professor 1998/99 year. Completed doctorate, five years teaching experience, record of research and publication; preference to candidates with experience in church ministry. TWS is sponsored by the Evangelical Free Church of Canada and is a part of the graduate school of theology of Trinity Western University (ACTS). Reply to Dr. Guy Saffold, Trinity Western Seminary; 7600 Glover Road; Langley, BC, Canada, V2Y 1Y1; (604) 888-7511. In accordance with Canadian immigration requirements, this position is directed toward Canadian citizens or landed immigrants in the first instance.

TURKISH LANGUAGE & LITERATURE

UNIVERSITY OF TORONTO — Turkish Language and Literature. The Department of Near and Middle Eastern Civilizations invites applications for a tenure-stream Assistant Professorship in Turkish Language and Literature. Applicants must hold the PhD degree and be able to teach undergraduate and graduate courses in modern Turkish and Ottoman language and literature, as well as courses that place Turkish and Ottoman within a broader cultural and historical framework. The Department of Near and Middle Eastern Civilizations is seeking a colleague who will complement its offerings in Islamic languages and literatures (Arabic and Persian), and Islamic history and diplomatics. The position is effective July 1, 1998. Applications will be considered by the Search Committee after December 1, 1997. Applicants are requested to send a covering letter outlining their research and teaching interests, together with a curriculum vitae, and to arrange for three letters of reference to be sent directly to: Chair, Turkish Language and Literature Search Committee, Department of Near and Middle Eastern Civilizations, 4 Bancroft Avenue, University of Toronto, Toronto, Ontario M5S 1C1. In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents of Canada. In accordance with its Employment Equity Policy, the University of Toronto encourages applications from qualified women or men, members of visible minorities, aboriginal peoples and persons with disabilities.

URBAN STUDIES

CONCORDIA UNIVERSITY — Department of Geography, Urban Studies Programme, invites applications for a limited-term appointment at the rank of Lecturer or Assistant Professor to begin August 15, 1998 to May 31,2000 (for a period of 21.5 months.) The Urban Studies programme offers pre-professional undergraduate studies leading to B.A. degree with Major, Specialization and Honours options. Faculty teach courses in urban development processes, community studies, planning history, field investigation methods, and computer applications in urban design. The programme is intended to provide a theoretical basis for understanding the physical structure and functioning of the city. Students also take courses in Geography, Sociology, Political Science and Economics and may also undertake an internship for course credit. Candidates should have professional and teaching experience, a Masters degree or higher, computer graphics and simulation skills, and a grounding in intervention methods. Please submit a letter of application, curriculum vitae and arrange for three letters of reference by January 15, 1998, to Dr. Patricia A. Thornton, Chair, Department of Geography, Concordia University, 1455 de Maisonneuve Blvd. West, Montreal, Quebec, Canada, H3G 1M8. You may also wish to include examples of work or publications or a teaching dossier.In accordance with Canadian immigration requirements, priority shall be given to Canadian citizens and permanent residents of Canada. Concordia University is committed to employment equity and encourages applications from women, aboriginal peoples, visible minorities and disabled persons. All things being equal women candidates shall be given priority.

ZOOLOGY

UNIVERSITY OF TORONTO —The Charles H. Best Postdoctoral Fellowship is awarded each year to highly qualified recent graduates (2 years or less postgraduate) in the field of molecular and genetic research. The fellowship is tenable in the Banting and Best Department of Medical Research at the University of Toronto. BBDMR is an internationally known basic research department, focusing on the molecular basis of disease. Individual research programs include studies on gene expression, signal transduction, development, neurobiology, and membrane transport. Further information on the Department, its faculty members and areas of research, can be found at our WEB site (http://www.utoronto.ca/bandb). Applicants for the fellowship are required to contact potential supervisors in advance using the e-mail addresses posted on our WEB page. An updated c.v. should be included in your message. Those who are successful in finding a prospective supervisor will be asked to forward a c.v., transcripts and three letters of reference to the Department for entry in the competition. The deadline for applications is January 15th 1997. Successful applicants may begin as early as July 1st, 1997, and will be supported for two years with a generous stipend.

ACCOMMODATIONS

SABBATICAL RENT Toronto Jan. - June or August '98. Furn. house, central, on subway. Lovely, bright, 3 bedroom, 2 1/2 baths + office and TV room. Great area, (Yonge-St. Clair), shops, restaurants, movies, parks. $1,700 a month + util. Phone (416) 925-8064 or e-mail Segunnot@glendon.yorku.ca.

EDINBURGH, SCOTLAND fully furnished 3-bedroom flat for rent from September 1998 to June 1999. Centrally located (New Town), all modern conveniences including central heating, washing machine, and dishwasher. Children welcome. Call Kathryn Chittick or Stephen Brown (Edinburgh 011-44-131-556-7381 phone/fax) or Roxanne Flower, Trent University (705) 748-1237 phone; (705) 748-1581 fax; email "nflower@trentu.ca."

FOR RENT — Ottawa (Westboro) Furn. House, fan-Aug '98 3 bdrms, 2 baths. Bright, h/dwd firs, lge kitchen, fin. bmnt with office and den. Minutes to excellent primary/secondary schools, rives, parks, shops, and transport. Close to downtwn and unv. Phone 613/729-1817 or E-mail sunbw@cyberus.ca

MONTREAL — Lower Duplex for Rent. Lower duplex two-floor apartment for sublet starting January 1, 1998 for the period of 12 months or less. Fully furnished, with all electric and electronic appliances, garden, and parking, in the NDG area. Two large bedrooms, dining room, living room, two bathrooms and office space. Fifteen minutes from McGill University and UQAM, ten minutes from Université de Montréal and Concordia University. Minutes from downtown Montreal, shopping, buses, subways, parks, schools and highways. Ideal for couple with two children. Excellent, quiet, and full of trees and green location. Car, computer and bi-monthly house cleaning optional. Professionals/academics preferred. $1000,00/mo. Contact: Anastasios Stalikas, 514-369-3068, Fax: 514-398-6968, e-mail: stalikas@education.mcgill.ca.

OTTAWA — Sabbatical leave, near Carleton, OLL Gen. Hospital. Elegant 3-story newly renovated house. Fully furn, 2-br, large 3rd floor studio with full bath, fireplace, fenced yard, landscaped, off- street parking. Non-smoking, no pets. From June, 1998-June, 1999 (exact dates negotiable). $1,300 + Utilities. Tel: (613) 730-7268. E-mail: mombaug@ccs.carleton.ca

SABBATICAL RENTAL — Firenzelitaly Historic Centre attractive one-bedroom apartment, sleeps 2/4. Monthly Italian Lira 1,500,000 + util.; weekly 700,000 all incl. - Spezzotti 011-39-55-245-739.

SABBATICAL RENT Lyon France, a great university center near Alpes and Mediterranean Sea, complete upper floor furnished in a private house, three bedrooms, access to enclosed garden, parking, residential district. 4000 FF. per month, electricity, heating and phone not included. Vacant immediately. Contact Mr Castelli 1436 Rang St-Ange, Sainte-Foy (Que.), G2E 3L9 or phone 418-877-8574.

NOTICEBOARD

The 21st Annual Meeting of the Canadian College of Neuropsychopharmacology (CCNP) will be held on June 14-17, 1998, Montreal, Quebec, Canada. For further information, contact Dr. Patricia Boksa, Douglas Hospital Research Centre, 6875 LaSalle Boulevard, Verdun, Quebec, Canada H4H 1R3. Tel: (514) 762-3048; Fax (514)762-3034; email: feboran@cam.org.

1998 SPRING/SUMMER INSTRUCTOR POSITIONS
The University of Calgary

The University of Calgary is now accepting applications for instructor positions in the 1998 Spring/Summer Session. Undergraduate and graduate level instructional courses may be available in Chemistry, Computer Science, Continuing Education, Dance, Economics, Educational Psychology, Educational Research, History, Management, Mathematics & Statistics, Music, Philosophy, Political Science, Social Work and Sociology.

Spring/Summer Session is scheduled in two academic terms: May 14 - June 30 and July 2 - August 19. The positions are term positions for approximately three to six weeks.

Requirements: PhD or equivalent is preferred, with three to five years of university level teaching experience in the subject area. Published articles in national and international journals would be an asset.

In accordance with Canadian immigration requirements, priority will be given to Canadian citizens and permanent residents of Canada. The University of Calgary is committed to Employment Equity.

The deadline to receive applications is December 1, 1997. Applications should include a curriculum vitae and indicate the area of interest, and forwarded to:

The Special Sessions Office
Faculty of Continuing Education
The University of Calgary
2500 University Drive N.W.
Calgary, Alberta T2N 1N4
Fax: (403) 220-0045 Tel: (403) 220-4991

THE UNIVERSITY OF CALGARY

www.ucalgary.ca

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HEART AND STROKE FOUNDATION

LAKEHEAD UNIVERSITY

PRESIDENT

Lakehead University invites nominations and applications for the position of President and Vice-Chancellor, to take office September 1, 1998. Located at the head of the Great Lakes in Thunder Bay, Ontario, Lakehead offers a comprehensive array of programs in the Arts and Sciences, as well as professional programs in Business, Education, Engineering, Forestry, Kinesiology, Nursing and Outdoor Recreation. The University has established both on-campus and community-based programs to serve aboriginal students, and serves the region of Northwestern Ontario through Part-time studies and Distance Education. Lakehead has a full-time equivalent enrolment of approximately 6,000, which includes students in graduate programs at both the Masters and Doctoral levels. The University has some 260 faculty engaged in teaching and research, and a staff of 360. In 1996-97 the University's operating budget was $48 million.

The President is the Chief Executive Officer, the Chair of the Senate, and a member of the Board of Governors. The President should have outstanding academic credentials, and will be expected to provide academic and administrative leadership to the University, as well as to maintain and expand linkages within Thunder Bay and Northwestern Ontario.

Nominations and applications, outlining qualifications and with three referees, should be submitted in confidence, by December 31, 1997, to:

Mrs. Maureen Doig, Chair
Presidential Search Committee
Lakehead University
955 Oliver Road
Thunder Bay, ON P7B 5E1
Fax: (807) 343-8075
E-mail: bdsensec@lakeheadu.ca

In accordance with Canadian immigration requirements, this advertisement is directed to Canadian citizens and permanent residents. Lakehead University is committed to employment equity, welcomes diversity in the workplace, and encourages applications from all qualified applicants, including women, members of visible minorities, aboriginal peoples, and persons with disabilities.

APPOINTMENT IN ANALYTICAL CHEMISTRY
Department of Chemistry & Biochemistry

The Department of Chemistry and Biochemistry invites applications for a position at the rank of Assistant Professor in the area of analytical chemistry (inorganic, environmental). This position will be commencing in January 1998 and is limited initially to a 6 month period with the possibility of renewal for a period of 3 years, subject to budgetary approval. The successful candidate will possess a PhD and relevant research experience. He/she must be able to teach both in French and English at the undergraduate and graduate level and be committed to established a solid research program.

Laurentian University is located in Sudbury, the heart of the Canadian mining and metallurgy industry. This strategic advantage offers the opportunity of collaborative interaction with the mineral resource industry, either through the Center in Mining and Mineral Exploration Research (CIMMER) or directly through the development of joint projects in the fields of mineral processing and ecological rehabilitation and resource management.

In accordance with the University's Policy on Bilingualism, Laurentian has a requirement of passive bilingualism (French/English) as a condition of tenure. The University offers to its employees free second language courses. Laurentian is committed to equity in employment and encourages applications from all qualified applicants, including women, aboriginal peoples, members of visible minorities and persons with disabilities. In accordance with Canadian immigration requirements, this advertisement is directed first to Canadian citizens and permanent residents.

Applicants should provide a curriculum vitae, a list of publications, a summary of research interests, a research proposal indicating equipment needs and three letters of references addressed to: **Dr. Werner Rank, Chair, Department of Chemistry and Biochemistry, Laurentian University, Sudbury, ON P3E 2C6; Fax: (705) 675-4844; http://www.laurentian.ca**

The deadline for this application is **November 20, 1997.**

Laurentian University

If Only Fish Could Talk

M.H. SADAR

Le présent article fait suite à celui de Matthew Kerby paru dans l'édition de septembre du Bulletin. Selon M. H. Sadar, cette question complexe mérite une analyse plus objective. Après avoir expliqué comment les fonctionnaires sont nommés à des postes supérieurs (selon le mérite ou par des nominations politiques), il explique qu'une grande partie des cadres supérieurs ont débuté leur carrière comme chercheurs ou scientifiques. Il trace ensuite l'historique de la création, vers la fin des années soixante, de ministères à vocation scientifique, nés du besoin de freiner la détérioration de l'environnement et d'appliquer les nouvelles lois et règles visant la protection de l'environnement. Comme il n'existait pas d'autres méthodes pour protéger l'environnement naturel, le gouvernement a réparti les responsabilités d'exécution en créant un certain nombre de portefeuilles à l'intention de politiciens influents qu'il voulait récompenser. Pour mener à bien leur mandat, ces ministres ont eu besoin de ressources financières et humaines suffisantes, ce qui a donné lieu à la bureaucratie actuelle, composée de scientifiques et autres. L'auteur croit que le système actuel n'est pas en mesure d'adopter une stratégie de protection des ressources naturelles fondée sur les écosystèmes. Il propose des pistes de solution qui pourraient aider le Canada à protéger son patrimoine naturel.

THE ARTICLE ENTITLED "BATTLE OVER FISHERIES Policy" by Matthew Kerby (*Bulletin*, September) and recent coverage of the issue by the Canadian media, call for a more analytical and objective discussion of this complex subject.

It is amusing to note that during extensive coverage of the subject, the use or abuse of science by so called bureaucrats, especially in the federal Department of Fisheries, has been the principal focal point of discussion. I firmly believe that for a meaningful dialogue on this very important issue, one must expand this discussion to include the following points:

The employment conditions of all civil servants are clearly defined and governed by a well-established system. A vast majority of the senior managers receive their promotions based on meritorious service. The rest, and at present an increasing number, are being parachuted directly at upper levels through political appointments.

A large majority of public servants holding management ranks cannot be considered as ignorant and nasty folks. These are responsible and university-educated people with good professional backgrounds and practical experience in various fields such as engineering, law, social, and natural sciences etc.

There is a significant percentage of senior managers in the federal government who started their careers as research scientists or in purely scientific areas but later joined the management ranks to become 'bureaucrats'.

In many cases scientific staff and research scientists working for governments have argued that their specialized knowledge and input in support of the departmental mandate justifies their promotion to the management ranks. The recent well-publicized and controversial complaints and subsequent rulings of the Human Rights Commission involving the National Research Council and Health Canada are two good examples.

Consequently, it seems unreasonable to put the entire blame on the so-called 'bureaucrats' for the mismanagement of fisheries and other natural resources.

To start with, one cannot determine the health and well-being of an isolated part of the ecosystem, such as the fish, birds or trees, without analyzing and understanding the natural interdependence and interplays of various components of the total ecosystem. One cannot ensure sustainability in fisheries resource without rational and comprehensive discussion of all laws, policies and programs pertaining to natural resource protection and management. In other words, one must adopt an 'ecosystem' approach for ensuring sustainable fisheries.

Public concern about deterioration of the environment surfaced in the early sixties. The governments, especially in industrialized countries like Canada, responded by upgrading existing rules and regulations, passing new environmental protection laws and by formulating and enforcing appropriate regulatory mechanisms. Naturally this led to reorganization of old management structures and the creation of new departments and agencies for enforcing such laws and regulations.

In creating organizational structures for protecting and managing Canada's natural resources, the governments generally adopted a fragmented and compartmentalized approach for distributing enforcement responsibilities. Considering that at the time such initiatives were taken there were no other models and/or alternative approaches for protecting the natural environment, this seemed a very reasonable way to proceed. Besides, the academic and research institutions have always operated on similar lines.

Past experience has now provided ample proof that institutions designed to deal with issues on a specialty specific basis are ill-equipped to develop and implement multidisciplinary and integrated approaches which are essential for effective natural resource management.

The current organizational structures of the federal and provincial governments for dealing with natural resource protection and management are politically motivated for exclusive benefit to the ruling political party(ies). The main purpose is to create a number of cabinet portfolios to accommodate influential politicians and reward various regions by appointing their representatives to such posts. Naturally, these ministers need and demand adequate human and financial resources in support of their mandate. Hence the presence of such a bureaucracy, consisting of both scientists and others, is a direct result of the political decision to have a multi-ministerial approach for dealing with resource management. The current system neither has the needed capacity nor the structure to adopt an ecosystem approach for natural resource protection.

It seems highly ironic that after having dissected 'environment' into various compartments such as fisheries, forestry, agriculture, parks etc., the federal structure also contains entities such as Natural Resources Canada and of course Environment Canada. Who, we may ask, is really safeguarding the interests of the fish and their habitat located in the vast oceans, rivers and fresh water streams flowing through thick forests and remote mountains?

Considering the political life cycle of an elected government is four to five years, and that of the politician holding a cabinet post is normally even less than that, the ministerial support system remains under constant pressure to deliver the necessary goods and services. The senior managers are expected to steer the ship in the desired direction and make speedy deliveries at the right time. Obviously, the government managers look for the necessary input and support from their subordinates, including scientific staff and others in their respective departments. Promotions in the management category depend upon the delivery of goods in support of the departmental mandate and specifically those items which make the Minister more popular among his/her colleagues and constituency. Serving long term interests of the national and/or global environment cannot remain a top priority item on the political agenda.

Undoubtedly, the alarm and concern raised by the scientific community and many others are valid and must be addressed to ensure our economic prosperity and health and the well-being of future generations of Canadians. I do believe, however, that a more comprehensive and holistic approach for resolving such issues should include detailed discussions on:

A thorough evaluation of federal roles and responsibilities in natural resources management and protection within the framework of constitutional restraints and the on-going evolution of federal-provincial relations.

A critical analysis and evaluation of the (confusing, conflicting and contradictory) roles various departments and agencies of the federal government are playing in dealing with natural resource management issues. Can this fragmented and piecemeal approach be justified on scientific, economic and ecological grounds?

The levels of cooperation and coordination among various levels of governments in Canada and more specifically within numerous federal departments, agencies and institutions. Are they conducive to a 'management-through-ecosystems' approach?

The programs and activities of the governments, especially those initiated and managed by the provincial and local governments which are putting the land, water and atmospheric resources under increasing stress. Are adequate mechanisms in place to assess long- and short-term impacts of such actions and for ensuring adequate remedial measures?

The relatively short life — about thirty years or so — of organized knowledge base in support of natural resource management. Are there appropriate research and development strategies for bringing it up to the desired level?

The world community has witnessed unprecedented and profound political and socio-economic changes during the past two decades. The past ideological differences and rivalries are quickly being replaced by new trade blocks and political alliances. The environmental security and natural resource controls and conflicts are already on the international center stage. There are growing concerns that Canada no longer enjoys its previous reputation as a key player in facilitating international cooperation for addressing global environmental issues. Canadians and their elected leaders must assume their responsibility and work harder to reverse this trend.

The federal government has recently appointed a Commissioner for Sustainable Development. Hopefully, the Commissioner can play a pivotal role in guiding Canadians and their governments towards the goals of sustainability. ■

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